JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

THIRD SERIES

VOL. 46 No. 19 — 18 SEPTEMBER 1939

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THE LOGGIA DEI BIANCHI

A photograph from the R.I.B.A. Silver Medal Essay, 1938, by Miss K. Gibbons, which, if our affairs had been normal, would have been published in this issue of the JOURNAL. Miss Gibbons's essay on the Architectural Development of Florentine Villas traced their history from mediæval times to the end of the 18th century

JOURNAL OF THE
ROYAL INSTITUTE *of* BRITISH ARCHITECTS

VOL. 46 3RD SERIES 18 SEPTEMBER 1939 No. 19

Journal

THE JOURNAL

Almost all the work for the publication of this JOURNAL had been completed before the country went to war and it has therefore been decided to publish it reduced only in size by the omission of the long leading article which was to have been Miss Kathleen Gibbons's Prize Essay on the Architectural Development of Italian Villas. The JOURNAL's contents, the manner of its production and its appearance are of the past and we must apologise for the seeming unrealistic approach to battle with talk of progressive architectural education, suspension bridges in Budapest and Northern Ireland Schools. We cannot tell now what the JOURNAL will become ; quite certainly the R.I.B.A. will be unable to continue to produce a JOURNAL resembling the peace-time paper in more than name ; but it is the Institute's intention to keep in touch with all members and the issue of some sort of bulletin or news sheet may be one of the ways in which this can be done.

The Institute's office will remain at Portland Place until further notice, working with a skeleton staff, one of whose chief duties will be to maintain contact between the profession and the various governmental departments which may need architects' services.

There have been hundreds of enquiries made at the R.I.B.A. in the past few days by architects wanting to know exactly what their position now is in relation to the National Service Register, the reservation of architects over 30 and so on. Unfortunately, it is impossible to give as definite answers as many would like, but the following memorandum, which has been approved by the Chairman of the Emergency Panel, outlines the present position.

NATIONAL SERVICE CENTRAL REGISTER

Appointments to Government Departments are being made through the Central Register. It is difficult to anticipate the extent and duration of demands which will be made on the architectural profession. It is therefore suggested that where members have an opportunity of enrolling for full-time service of any kind they would be well-advised to do so.

With regard to the retention of the services of assistants, it is of course impossible to estimate what demands are likely to be made by Government Departments and others upon firms of architects, and at this stage it appears that the decision as to whether or not the members of a staff should be retained must of necessity rest with the employer.

In the case of those desiring to join the forces, it is suggested that they should consult their local territorial associations regarding vacancies in local units.

It is thought that the services of architects could best be utilised in the Royal Engineers or Royal Artillery.

The Institute has no information of the Government's intention as to the liability of persons on the Register for military service other than has been publicly announced.

The Executive Committee of the Council will convey to members any important decisions that may be made on matters of policy.

The normal activities of the Institute have closed down but it may be found possible to re-establish some departments as the country adjusts itself to war conditions. In the meantime, however, members are asked to note that :—

The library is closed, except that as long as possible we hope to keep current periodicals on view in the

periodical room so that they can at least be read by members as a relief and recreation. The most valuable books and drawings have been sent away to safety out of London, most of the remainder are already carefully stored in the safest possible places in the R.I.B.A. Building. It is hoped that arrangements may be made to continue the technical information section for the benefit of members engaged on war work and with this in view a careful selection of all technical books and information files is being made. Whether this continuation of a very essential service can be made will depend on a large number of factors ; finance, the degree of co-operation we receive from outside, the possibility of finding a safe place from which the service can be operated, etc. If the scheme is brought into being members will be told. A notice has been sent to all those who have books from the loan library asking them to return the books without delay. We sincerely hope that this will be done without making second applications necessary.

The work of the Board of Architectural Education is suspended. Arrangements for conducting the Intermediate, Final and Special Final Examinations, the Statutory Examinations and the annual competitions have been postponed and students, etc., preparing testimonies of study are asked not to submit them at present.

These notes are being written scarcely two days after the start of war, answers to every question cannot be expected, nor can it be known even in general terms what function the R.I.B.A. will actually be able to fulfil in war. One thing is certain that, whatever war may mean for architecture, the R.I.B.A. has the clear duty of providing continuity to bridge this gap in civilisation. That is the Institute's function : it is no use trying to discourse on the way that task can be fulfilled. It will be the anxious and continual duty of the R.I.B.A. to maintain the profession's place in the service of the country while conserving all that is in their charge that may help a new and better architecture to build the world up afterwards.

A.R.P. at the Institute

The R.I.B.A. building has now its air-raid shelter, " within the meaning of the Act," completed and ready for use. Defined as " a commercial building " and containing a total staff—including that of the A.B.S.—of just over fifty, the building had to be equipped with a basement shelter. The space for this was not so easy to find as might be supposed, specially as a portion of the basement had been scheduled by the Local Authority as a public shelter. Eventually the staff shelter was provided by building a 14-in. wall down the long axis of the basement room beneath the general office. This halved the span of the beams and additional steelwork has been inserted to support the floor panels. Oddly enough, the new arrangement will suit peace time requirements better than did the old one, which was rather wasteful of space.

A.R.P. Publications

Special attention is drawn to the list of Official Publications on A.R.P. printed on the next two pages. Every architect is well advised to acquire all of those which are still obtainable.

Steelwork in A.R.P.

The London County Council have ruled that additional steelwork used for strengthening against debris loading need not be provided with fire encasement. This ruling is contained in a letter addressed to the British Steelwork Association, a copy of which has been sent by the L.C.C. to the A.R.P. Committee of the R.I.B.A. The letter, which is signed by the Chief Architect, contains the following passage : " In reply to your letter . . . regarding the control and supervision of the construction of air-raid shelters within buildings, the District Surveyors' Association has now been informed that, where steelwork is used in the construction of an air-raid shelter within an existing regular building, such steelwork being independent of, and additional to, the ordinary construction of the building proper and so arranged as not to render the building out of conformity with the provisions of the Building Byelaws, fire protection for such steelwork need not be insisted on. In the event of the additional steelwork being removed, the building must remain in conformity with the Building Byelaws."

The R.I.B.A. Register of Assistants

Attention has been drawn to the fact that while some architects in private practice who are exceptionally busy with A.R.P. and similar work are finding it difficult to obtain assistants, other architects whose work is practically suspended owing to the international situation are concerned about dispensing with the services of their assistants as they feel that the latter might find difficulty in obtaining work.

Members are reminded that the R.I.B.A. Register of Assistants, if used by both those who are seeking work and those who are wanting additional staff, will help to solve this difficulty. The use of the Register is not confined to those who are at present unemployed.

It is hoped, therefore, that members will avail themselves of the facilities offered by the Register.

STRUCTURAL AIR-RAID PRECAUTIONS

Annotated, Selected List of Official Publications up to 31 August 1939

The following documents, issued by the A.R.P. Department of the Home Office, the Ministry of Health, etc., are obtainable from H.M. Stationery Office.

LEGAL DOCUMENTS

1. *The Civil Defence Act 1939.* 2s.

This Act, together with the Air Raid Precautions Act 1937, constitutes the statutory basis of the Government's A.R.P. programme. Part III of the Civil Defence Act relates to private shelters in factories, mines and commercial buildings.

2. *Air Raid Shelters for Persons Working in Factories, Mines and Commercial Buildings. Revised Code, August 1939.* 6d.

This is " the Building Code " attached to the Civil Defence Act and sets out the statutory structural requirements of private shelters. *Architects engaged on such work must study this document thoroughly.* It supersedes the following :—

3. *Air Raid Shelters for Persons Working in Factories, Mines and Commercial Buildings ; Draft Provisional Code.*

This document, which is now out of print, was produced to provide guidance on structural requirements in shelter works prior to and immediately following the signing of the Civil Defence Act. Any shelter built or started under the Draft Provisional Code will be accepted as being a shelter of approved standard under the Act. (See note in Document No. 4 below.)

EXPLANATORY DOCUMENTS

4. *Memorandum on the Revised Code " Air Raid Shelters for Persons Working in Factories, Mines and Commercial Buildings.* 2d.

This document explains the Building Code (Document No. 2 above). It contains, in parallel columns, notes on the essential differences between the Provisional and Revised Codes.

5. *Provision of Air Raid Shelters in Basements. A.R.P. Memorandum No. 10. 1st Edition.* 4d.

A technical publication on basement shelters, intended for the guidance of architects, engineers and the officers of local authorities. The publication of the Revised Building Code (Document No. 2 above) has rendered Memorandum No. 10 partially obsolete.

6. *Provision of Air Raid Shelter. A.R.P. Department Circular 91/1939. 25 April 1939.*

A circular to local authorities, explaining the Government's shelter policy. Architects undertaking either private shelter work in factories and commercial buildings or public shelter work for local authorities would be advised to study this circular. It contains a list of the " Scheduled Areas "—the term now officially adopted for areas hitherto described as " vulnerable " or " designated."

7. *Provision of Air Raid Shelter. A.R.P. Department Circular 110/1939. 22 May 1939.*

An amplification of the matter contained in Circular 91/1939 (Document No. 6 above). It gives the areas and addresses of the Regional Technical Advisers, the names and addresses of the Secretaries of the Professional Advisory Committees and a Scale of Professional Charges by architects and engineers for public shelter works for local authorities. (It should be noted that this Scale has no reference to *private* shelter works.)

8. *A.R.P. in Industry.* Obtainable free of charge from the A.R.P. Department of the Home Office and from local A.R.P. officers.

A simply worded pamphlet explaining the legal obligations of the owners of factories and mines, and of the occupiers of commercial buildings in providing shelter for their employees. Architects will find this useful to hand to clients undertaking private shelter work.

9. *Pamphlet on Shelter from Air Attack.* 2d.

General advice about the provision of shelter from air attack and some useful technical information. This pamphlet was published before the Revised Code (Document No. 2 above) and is now somewhat obsolescent.

A.R.P. RESEARCH DATA

10. *A.R.P. Handbook No. 5. Structural Defence 1st Edition.* 2s.

Scientific and technical data on air attack, the characteristics and performance of bombs and general principles of structural defence in new and existing buildings.

11. *A.R.P. Handbook No. 5 (a). Bomb-Resisting Shelters. 1st Edition.* 6d.

Report of a Committee established by the Institution of Civil Engineers at the request of the Home Office to prepare methods and type designs for protection of varying degree against the direct hit of high explosive bombs.

AIR RAID SHELTER POLICY

12. *Air Raid Shelters. Report of the Lord Privy Seal's Conference.* 6d.

Commonly known as the " Hailey Report " this is a general statement on national shelter policy and can be accepted as the basis of arrangements sponsored or enforced by the Government. It discusses the major considerations involved, the various forms of active and passive defence, and types of shelter in general terms.

13. *Air Raid Shelter Policy. Report to the Lord Privy Seal.* 2d.

A report by three engineers, Dr. David Anderson, Mr. B. L. Hurst and Sir Henry Japp, which accom-

panied their design of the standard domestic steel shelter. It discusses the protection of residential buildings of all kinds.

DOMESTIC SHELTERS

14. *Directions for the Erection of Domestic Surface Shelters.* 2d.

Describes and illustrates small shelters made of brickwork, mass concrete or masonry, having reinforced concrete roofs. These shelters are intended for sites where it is impossible to provide shelter below ground.

15. *Air Raid Precautions. Directions for the Erection and Sinking of the Galvanised Corrugated Steel Shelter.* Free of Charge.

This pamphlet consists of directions for assembling the Anderson Steel Shelter. Now attached to it is an additional pamphlet entitled "Galvanised Corrugated Steel Shelters: Variations on the Standard Unit."

OTHER PUBLICATIONS

16. *Incendiary Bombs and Fire Precautions. A.R.P. Handbook No. 9.* 6d.

Contains descriptions of firefighting equipment and procedure.

17. *Preliminary Memorandum on the Organisation of Air Raid Precaution Services in Industrial, etc., Undertakings and the Training and Equipment of Personnel.* 3d.

A description of the necessary organisation and requirements in respect of training which must be adopted in factories, mines and commercial buildings under the Civil Defence Act.

18. *Structural and Other Precautions Against Air Raid Risks in Hospitals. Emergency Medical Services Memorandum No. 1.* Ministry of Health, 3d.

A publication by the Ministry of Health on A.R.P. technical requirements in hospitals.

19. *Emergency Hospital Organisation. Emergency Medical Services Memorandum No. 2.* Ministry of Health, 6d.

Is concerned mainly with hospital equipment and organisation.

20. *Specifications, etc., in regard to Permanent Lining of Trenches. Second Edition.* 4d.

Useful information on trench shelter schemes.

21. *Air Raid Precautions for Government Contractors.* Admiralty, War Office and Air Ministry, 4d.

An outline of A.R.P. measures required of industrial firms working for the Government.

22. *Air Raid Precautions Act, 1937. First Aid Posts and Points. Circular 1789.* Ministry of Health.

Official recommendations on surgical and medical equipment, mobile units and personnel of first-aid posts. Issued to local authorities.

23. *Report of the Committee on the Responsibility for the Repair of Premises Damaged by Hostilities.* 6d.

Proposals made by a special Committee appointed to consider legal problems arising from the damage of buildings by enemy action.

24. *The Camouflage of Large Installations. Handbook No. 11.* 3d.

25. *Rescue Parties and Clearance of Debris. Memorandum No. 2. Third Edition.* 2d.

STANDARD SPECIFICATIONS

A series of A.R.P. Standard Specifications is in course of preparation by the British Standards Institution, 28 Victoria Street, S.W.1, at the request of the Home Office. The following have been published and are obtainable from the Institution.

1. BS/A.R.P. 1. Aggregates for Concrete Shelters constructed *in situ*.
2. BS/A.R.P. 2. Bituminous Paint and Bituminous Compound (for protection of steelwork).
3. BS/A.R.P. 3. Electric Hand Lamps.
4. BS/A.R.P. 6. Electric Lighting of Air Raid Shelters.
5. BS/A.R.P. 15. Light Locks for Shop Fronts.
6. BS/A.R.P. 16. Methods of Providing Even Illumination of Low Intensity, .002 foot candles.

THE LONDON BUILDERS' CONFERENCE

The Joint Committee of Architects and Quantity Surveyors have had under consideration for some time the matter of the London Builders' Conference, and have received reports from the R.I.B.A. Practice Committee and from the Quantity Surveyors' Committee of the Chartered Surveyors' Institution, as a result of which correspondence has passed between the Joint Committee and Sir Alfred Hurst, the independent Chairman of the London Builders' Conference. The Chairman of the Joint Committee and the Chairman of the R.I.B.A. Practice Committee have also met Sir Alfred Hurst and discussed the matter at some length.

It is stated that the main object of the London Builders' Conference is to eliminate unfair price-cutting, and it is therefore suggested that this attempt to improve the standard of the building industry requires the co-operation of the professions concerned. The Joint Committee consider that the majority of the evils of price-cutting arise largely from competition between firms of builders whose standards of workmanship, financial stability and general standing in the industry are widely different. They feel that it often lies within the power of architects—and it is indeed already the practice of many architects—to advise their clients to restrict the invitations to tender to firms of builders in the same class, judged by these standards.

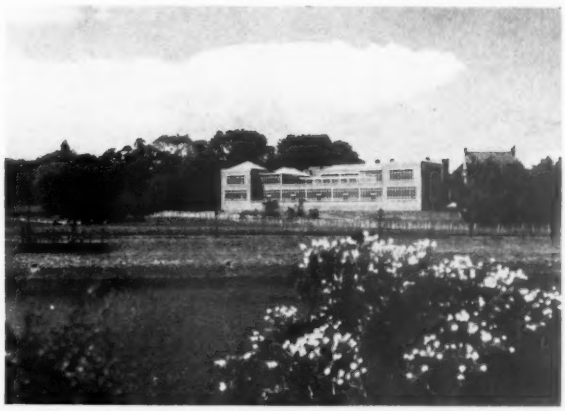
After due consideration the Joint Committee have come to the conclusion that in the interests of the building owner they cannot approve of the operations of the London Builders' Conference, which have the effect of adding an amount to the contract price for which the building owner receives no visible or tangible return.

The Councils of the R.I.B.A. and the Chartered Surveyors' Institution have approved the recommendation of the Joint Committee that a note should be published in the Journals of both bodies, informing members :—

(*a*) *That they should advise their clients of the advantages of limiting invitations to tender to a reasonable number.*

(*b*) *That they should classify contractors according to standards of workmanship and general standing in the industry, and invite only those in the same class to tender for a job suitable to that particular class; and*

(*c*) *That the Councils of the R.I.B.A. and Chartered Surveyors' Institution are unable to register approval of the operations of the London Builders' Conference.*



General View from the River Lagan

BOTANIC PUBLIC ELEMENTARY SCHOOL BELFAST

Architect : R. S. WILSHERE [F.]

Site and Plan

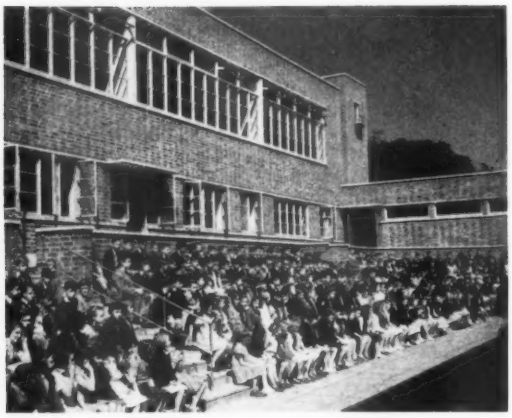
This school for 550 senior pupils is built on a steep slope overlooking the Belfast Botanic Gardens Park and the River Lagan. The site faces south over the park, and is entered from a road on the north at the top of the slope. At the foot of the slope the ground in front of the school is at present being laid out as playing-fields for the general public, and these will also be used by the school. The slope of the site, its smallness for a school of this size—only just over half an acre in extent—and subsoil difficulties on the lower half of the site presented special problems, and the solution is an interesting one.

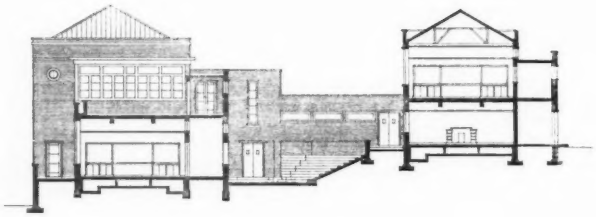
The building is planned in two parallel blocks, one on the north at the top of the slope and the other on the south, farther down the slope and facing the park. The two blocks are linked at their extremities, and the courtyard formed between them has been treated as an open-air amphitheatre with five tiers of seating capable of accommodating the whole of the school. This can be used for assembling all pupils, for open-air classes, or for school concerts, and the open class-room corridor on the south provides a suitable stage setting for theatrical performances.

The north block adjoining the road comprises administrative offices and boys' and girls' cloaks on the ground floor, and four classrooms upstairs. The south block has five classrooms on the ground floor, all opening on to a paved terrace overlooking the park, and flanked by the woodwork and housewifery rooms ; upstairs there are two infants' classrooms separated by a wide terrace, and flanked by the science and art rooms. The staircases for the south block are planned as part of the corridors linking the two blocks, since owing to the slope of the site the north block is at half-landing level. Adjoining the west corridor is the assembly hall, provided with cinema apparatus and a separate entrance from the street. The west side of the hall has a row of french doors opening on to a balcony which overlooks the rock gardens of the park.

Construction and Finishes

The subsoil at the highest portion of the site is good, firm sand, but the lower half is a wet sleech, evidently a relic of the days when the River Lagan must have flowed over the ground. Accordingly, it was necessary to pile the south block, pressure piling being adopted, and the piles varying in length from ten to twenty feet. The north block is carried on brick piers taken down to the sand at a depth of three to four feet. The building itself is constructed of brick, faced with multi-coloured rustics, red rustics being used for the quoins and for the brick flower boxes. Artificial stone dressings are used where required for structural purposes. The roofs are of red Roman tiles.

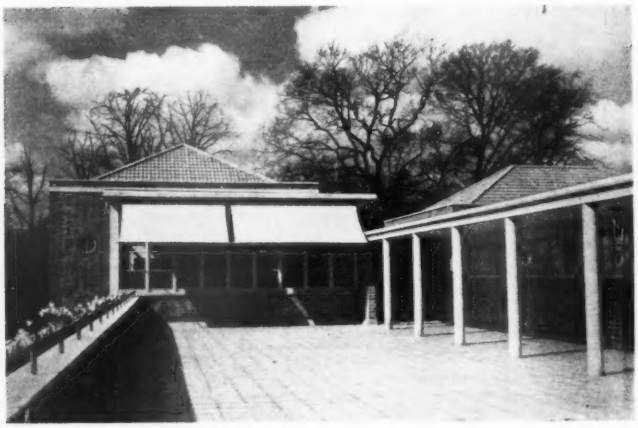




Left: The Amphitheatre

Below Left: The south block from the park

Below Right: The upper terrace overlooking the park and River Lagan



The narrow terrace outside the ground floor classrooms is paved with coloured concrete flags, and the large upper terrace with green terrazzo in order to reduce glare. Classroom ceilings are insulated with fibre board above and below the concrete slab.

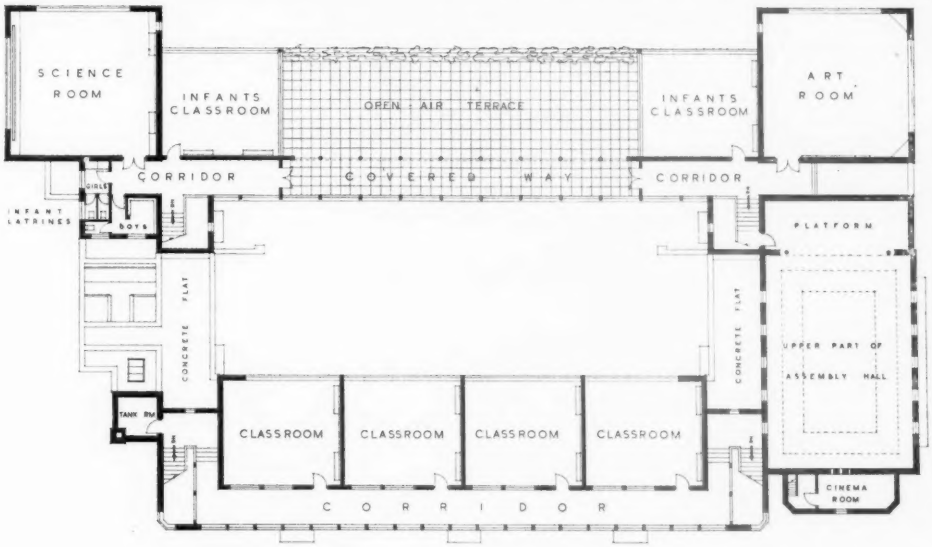
Externally the building is finished with cream sashes and green doors. Internally the colour scheme is carefully worked out, the general background being mushroom colour ceilings, cream walls and grey dadoes. Relief is provided by the use of rose, salmon pink, purple, mauve and blue. In each room a combination of two of these colours is used for the presses and doors, and to ensure continuity of appearance one colour is always repeated in each adjoining room. The corridors also repeat these colours, the doors being mauve or purple and the columns bright rose pink.

The assembly hall is kept quiet in tone, the lower portions of the walls being finished in a creamy brown-textured Rexine, $\frac{3}{4}$-in. half round beads covered with the same material masking the horizontal joints. The columns to the platform are of wood, covered with gold Rexine. Over the five entrance doors from the corridor are panels cut in hardboard by Mr. Morris Harding, R.H.A. The panels represent the five principal industries of Ulster: agriculture, shipbuilding, tobacco, linen and rope. The designs for these panels were prepared in collaboration by Mr. Morris Harding, Mr. John Luke and Miss P. Mullan.

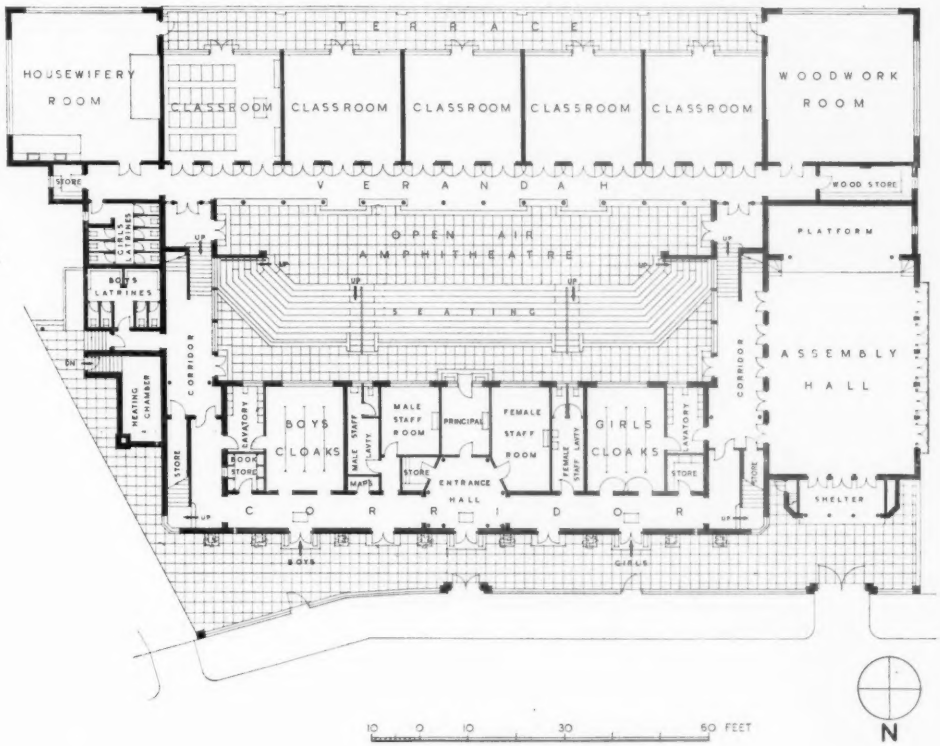
The cost of the building was as follows:—

	£	s.	d.
Main structure	20,289	0	0
Hot water heating	950	0	0
Electric lighting, ...	274	9	5
Total	21,513	9	5

First Floor



Ground Floor



Left : Street elevation of north block

Above : The balcony opening off the assembly hall, seen from the park

Left : Entrance porch in steel and glass

CONTRACTORS AND SUPPLIERS OF MATERIALS

GENERAL CONTRACTORS : James Moreland, Powerscourt Street, Belfast.

SUB-CONTRACTORS AND SUPPLIERS : Heating, J. J. and R. McClockey ; lighting, J. & T. Craig (Belfast), Ltd. ; copper expansion joints, I.C.I. Metals, Ltd. ; roofing felt, D. Anderson & Son, Ltd. ; Alundum stair tiles, J. Forsythe & Co. ; flags, Workman Forth & Co. ; cast stone, Concrete Industries, Ltd. ; Nautilus fire blocks, floor clips, " Everite " boundary wall gutters, flooring tiles and Tyrone rustic bricks, per John McNeill, Ltd. ; roof tiles, Colthurst, Symons & Co., per Pilot Supply Co. ; " Bimol " blocks, Captain Ryall ; Hydralime, Cement Marketing Co., and reinforcement, Twisteel, Ltd. ; Rexine, Imperial Chemical Industries ; rainwater heads, Macfarland & Co., Glasgow ; roof lights and fuel hoppers, Robert Kirk, Ltd. ; sanitary fittings, Doulton & Co., Ltd. ; plaster, " Astroplax " ; paint, Gay & Co., Ltd. ; piling, Pressure Piling Co., Ltd. ; steel windows, Braby & Co., Ltd. ; door and window furniture, Potts & Houston, Wellwood & McMillan, R. Patterson & Sons ; roof steelwork and balustrading, R. J. McKinney, Ltd. ; clocks and bells, Sharman D. Neill, Ltd. ; cloakroom fittings, A. Brown & Co., Birmingham ; cloakroom gates and guards to window balconies, Musgrave & Co., Ltd., Mountpottinger ; flush doors, Pilot Supply Co. ; sun blinds, John Andrews and Sons ; steel lettering, Nash & Hull, Ltd., London ; balustrading to terraces, Chapman & Co.

BUILDING IN ARCHITECTURAL EDUCATION

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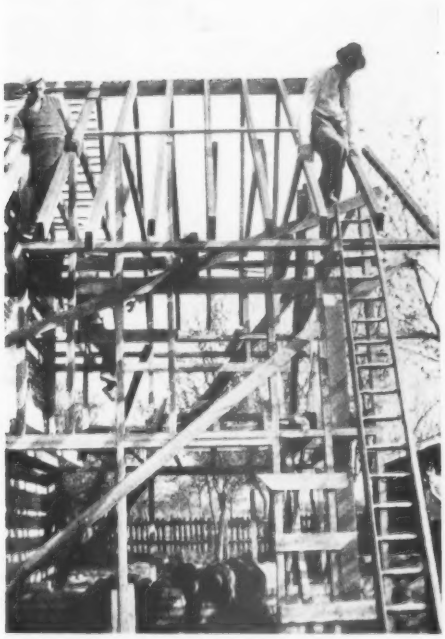


" The beginning of training for building and design must be on the works and in the shops. Architecting is a responsible business, like commanding a ship. Building is an art of doing. The architect cannot learn all the ways of workmanship, or may not master even one craft, but actual doing is necessary at the foundation to give direction to the mind. The skilled foreman with an all-round instinct for the building crafts was only apprenticed to one of them ; the architect should be an upper foreman."

W. R. LETHABY.

One of the difficulties with which academic systems of training architects are burdened is the lack of contact with actual building. Often a student of architecture feels that it will be only after he has left his school, and has spent some time working in an office, that he will really be able to begin to grasp the meaning of designing ; and that much of the theory he works by at school is so cut off from the actual practical fashioning of structure and material that it will have to undergo fundamental revisions as soon as he is faced with the reality of building.

Holiday work in offices can do something to help him ; so can visits to works in progress, access to specimen materials, and good practical lectures illustrated with slides of building processes. And in the future it may be hoped that the film will come into its own as one of the means of teaching.

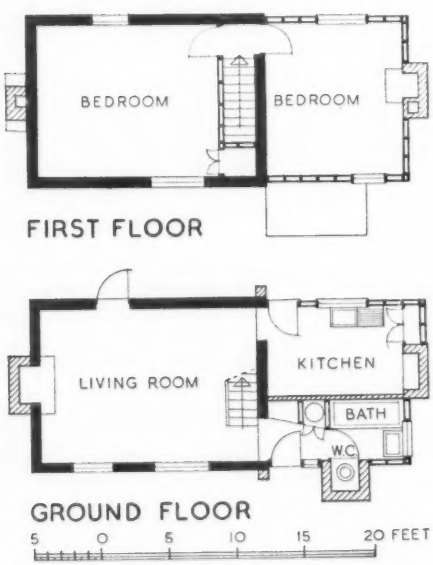
But these methods are not enough ; even holiday work in offices, the nearest to actual practice, can rarely give the student the opportunity of seeing a building designed and erected from start to finish. And it is this opportunity, properly used, that he needs if he is to get the best value out of the free and experimental attitude to building which a school of architecture can give him. For the lack of such an experience can lead not only to whimsey and unrealistic design, but also to a sense of frustration that grows with every term that the student spends at his school.

Paper architecture is not enough. Lethaby once said : " Now that it is taught that architecture is recombining on paper features learnt from old styles mixed according to taste, it is not seen that a paper architect is almost as absurd as a paper athlete." To-day architecture may no longer be taught like that, but the dangers of paper still exist. Building is a solid, three-dimensional affair composed of materials with certain qualities and limitations assembled by power, human or mechanical. Drawings on paper are only one of the architect's methods of conveying to other people the three-dimensional idea he has worked out in his head.

In many schools of architecture to-day students are extending their studies towards larger projects of town and neighbourhood planning, taking as their province not only the problem of the individual building, but also the problem of the wider human environment. This work is healthy and valuable, and a reflection of what we are more and more coming to realise is a very real need of contemporary society ; but the problem of the individual structure exists nevertheless, and must

not be allowed to be pushed into second place in the schools. Perhaps the functions of the architect and of architectural education are to-day " in standing water, as a squash is before 'tis a peascod," for although the wider needs of society may have become clearer to us since Lethaby's time, what Lethaby stood for is still a part of those needs.

How can this sense of the reality of building be given to the student, the feeling of frustration be broken down, and the ability to connect the idea with the solid material be fostered? Practical building work can do a great deal. The impressions we have got from Frank Lloyd Wright's recommendation of honest sweat and working with the hands may be mixed with a curious mysticism of which we tend to fight shy, and even Gropius has been continually misunderstood as advocating handicrafts at the Bauhaus, but eclectic craftsmanship or a mystical union with the earth need not enter into the matter at all. Practical building can explain simply how and why things are done. During a student's training it may only be a small part of this explanation, and it must necessarily be limited to fairly simple structures and methods of erection, but it can be a rich and illuminating part nevertheless. " Actual doing is necessary at the foundation to give direction to the mind."



Existing brickwork shown in black; New brickwork shown hatched

A still from the film by A. L. Lewis

The photographs and drawings on these pages illustrate a recent experiment in practical building experience for students that was initiated and carried out by two masters at the A.A. School of Architecture, Douglas Jones and C. F. R. Hansom [*AA.*]. They bought a small derelict brick cottage on half an acre of land at Edlesborough, near Dunstable, prepared a scheme for reconditioning and extending it, and got together a group of about twenty students from the school—a convenient working number—to carry out the majority of the building. Most of the work on the site was done during the last Easter holiday, and a certain amount at week-ends in term time. The organisation of the group appears to have been refreshingly democratic. One of the students said: " The staff lived on the farm next door with the students. Everyone shared the responsibility of the job; and it was kept going not by a discipline imposed by a foreman (there wasn't one) but by everybody's natural enthusiasm to get something built."

The first work consisted of stripping the ivy which almost entirely covered the cottage, and demolishing the one storey timber annexe. The roofs were stripped, and the tiles stacked for re-use. The existing chimney was removed to give place to a new staircase, openings cut in the brickwork of the end wall to provide communication to the new extension, and brick buttresses to the wall built by the students. Further brickwork—two new chimneys, a partition, and the external walls to the W.C.—was done by skilled bricklayers; the students gave up bricklaying after experience with the piers and sleeper walls. Other trades not attempted by the students were plumbing, electricity, plastering, and joinery (staircase, windows and external doors).

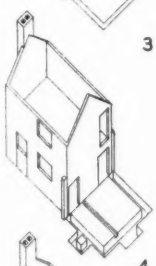
The extension, consisting of a ground floor kitchen, bathroom and W.C., with one bedroom upstairs, is a balloon frame timber structure, faced externally with feather-edged boarding on building paper, and internally with either V-jointed matching, vertical birch plywood, or panella coated with a mixture of sand and size.

1

The original brick cottage, with the single storey timber annexe

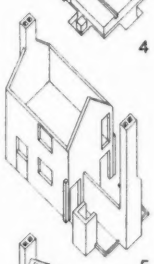
2

The annexe demolished, roof stripped, chimney demolished, openings cut in the end wall, and buttresses constructed at either side



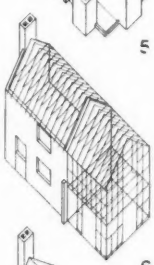
3

New foundations dug for the extension



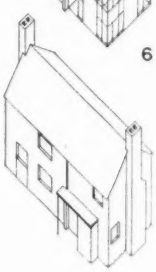
4

New brickwork built



5

Timber frame erected (this work was done concurrently with the brickwork)



6

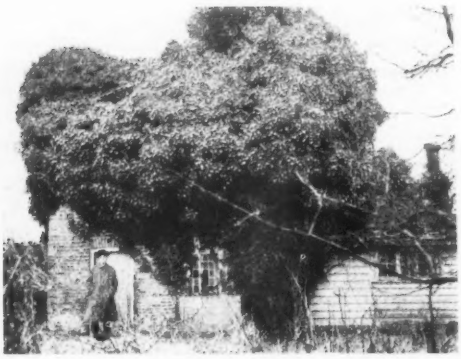
The completed building

Timber construction was used for the extension because it is relatively easy to erect with unskilled labour, and in any case it would have been impossible to match up the existing brickwork. The roof was boarded with feather-edged boarding to form battens for the tiling, and the old roof was re-tiled and extended to cover the new structure. Ceilings were finished with ceiling board. The new ground floor is of quarry tiles on concrete, and the floor of the old building was lowered 6 in. and the tiles carried through to the same level.

A detached garage was built between the house and the road. This was done entirely by the students, who also designed it. It is a frankly experimental structure, of 3 in. by 2 in. studs at 2 ft. centres, on brick plinth walls, faced externally with a $\frac{1}{4}$ in. resin bonded pine plywood in 8 ft. by 4 ft. sheets, and internally with asbestos. The accuracy with which this was erected was notable, none of the sheets having to be cut or planed at corners, etc., and all fitting together perfectly plumb. The flat roof was covered with a patent bituminised sheet.

Quantities for the work were taken out by Mr. Martin Sheffield, P.A.S.I., and a film of the whole job was taken by a student, A. L. Lewis, any processes which were felt might be useful to other students being photographed fully.

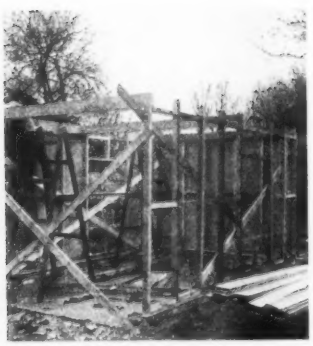
It is interesting to note that the A.A. School has recently announced that it intends in future to try to make this type of work a regular feature of the curriculum, and that students, probably during their second year, should spend a term away from the school and on the site. Such an experiment deserves every success.

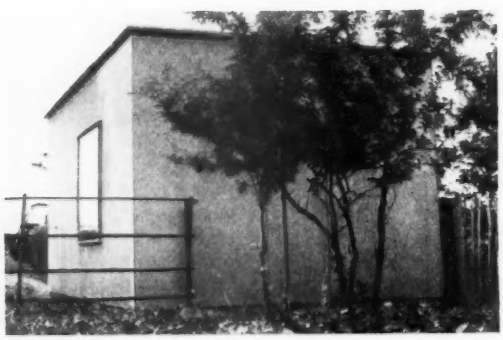


Left : A still from the film by A. L. Lewis

The three larger photographs above show the cottage before, during and after reconstruction

The photographs below are of the garage





THE SUSPENSION BRIDGE OVER THE DANUBE AT BUDAPEST

Built One Hundred Years Ago by Mr. William Thierney Clark and Mr. Adam Clark

By JOSEPH VAGO [H.Corr.M.]

Destiny has allotted to two English architect-engineers a strange fate that—after having created, not on paper but in stone and steelwork, a masterpiece of art, one of the world's most beautiful suspension bridges—their name has remained unknown, even after a century, to most Englishmen.

It is true that Budapest, where this wonderful work stands, is relatively far from England.

Nevertheless, if Thierny and Adam Clark's bridge was a second-class picture praised by æsthetes and critics, enthusiastic amateurs from all over the world would travel to see it. Architecture is too abstract for the average public.

The Budapest public has—in general—some idea of the beauty of their suspension bridge. They like it. It is a symbol of the grandeur of Hungary's capital. It was the first and for a long time the only bridge to span the mighty river which before separated the two small cities : Buda and Pest. The new suspension bridge was the starting point for the vertiginous development of the united new capital ; in the course of time it has become a part of the marvellous landscape and the pride of the Hungarians. Budapest now is as unimaginable without this bridge as London would be without St. Paul's or Westminster.

Illuminated in a summer night by thousands of electrical lamps the bridge seems like a fairy brooch on the neck of the " Queen of the Danube."

* * *

There is no relationship between the two Clarks.

The elder one, Mr. William Thierny Clark, was an Englishman and in his time a well-known constructor and contractor who built among other things the still existing Hammersmith suspension bridge. He was over fifty when the Hungarian Count Széchény, agitator for this bridge construction, met him the first tim

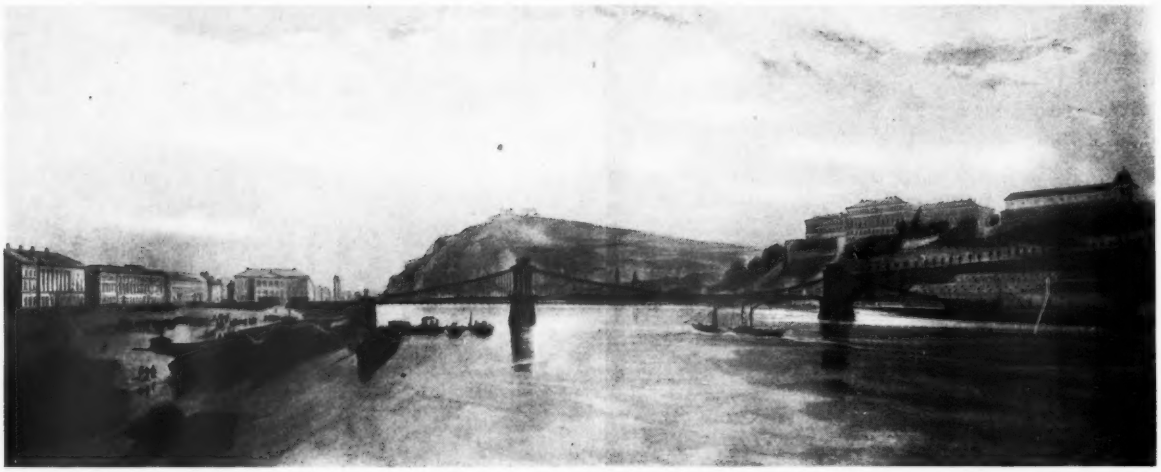
Adam Clark, a young Irishman who was born in Dublin in 1814 and who died in Budapest in 1865, was doubtless more artistically gifted than his senior colleague and master, although there is no official document to support this statement.

A certain rivalry existed also between the two eminent persons. William Clark rarely mentioned his " clerk," although Adam Clark always spoke respectfully about his " principal." In reality, Adam Clark was never William's " clerk," who had the job and prepared the plan of the bridge in its outlines. But as the illustrious constructor was very busy and the communication between London and Budapest (without railways) was too long and toilsome, Adam Clark was engaged by Count Széchény, on behalf of the Bridge Building Society, to conduct the works on the spot as his substitute and William Clark gave his consent to this arrangement.

So Adam Clark started in 1839 for the second time for Budapest. For he was once before there, in 1834, as a quite young engineer, also on the invitation of Count Széchény, occupied by the preliminary works of dredging and regulation of the River Danube.

Later, in 1847, he had also a high position in the Hungarian Ministry of Public Works, but as his protector, Count Széchény, abdicated, he also left his office.

After ten years, the bridge construction finished, he returned to England in 1849 and worked there some years, until he was engaged once more to build the tunnel under the Palatin-hill in Buda, in the continuation of the bridge.



The bridge at the time of its erection

So he returned to Hungary, married Miss Jolan Aldássy from an old patrician family, built the tunnel with its monumental Doric portal of classic beauty, terminated in 1857, and finished there his worthy and successful life in 1865.

William Clark came only once a year to control the works. It is not necessary, I think, to give details of the life of the creator of the Hammersmith, Shoreham, and Marlow bridges.

It is in the nature of such a work as the Budapest bridge that while the imposing whole steelwork could be studied and finished also in its details in London, the stonework had to be adapted to the local conditions and materials.

And this part, I think, is to the credit of Mr. Adam Clark.

* * *

Just a hundred years ago, in September 1839, the work started, and the ten years it lasted could be called a sublime epic of human will and labour full of dramatic moments.

Yet the beginning was preceded by long and tenacious battles against the interest of different social classes in Hungary. Count Széchény's scheme was that a company should be formed to finance the construction and that income should be obtained by levying tolls on the bridge's users. But the feudal nobility would not renounce its privileges by agreeing to pay any duties. On the other hand the citizens of both sides were also against the scheme owing to various petty rivalries concerned with privileges and incomes derived from exploitation of the existing pontoon bridge, which would be eclipsed by the new bridge.

Above all, there were technical doubts and anxieties. Nobody would believe in the possibility of a stable bridge across the mighty river, which freezes every winter ; no construction, they said, could resist the enormous ice masses, or, the piers obstructing the current, they feared that the accumulated water would inundate the town.

To find means to counter their fears Count Széchény had come to London in 1832 to consult the experts such as Mr. Telford, Mr. W. Jates, Messrs. Plews and Slater, but chiefly Mr. William Thierny Clark, who answered, in his 37 items, all questions and revealed the possibilities of a suspension bridge. Finally all difficulties were overcome, all laws passed, the job contracted and signed and the work could begin.

Adam Clark had to travel by coach and on horseback through parts of Hungary, Austria, Tyrol, Styria, Bavaria and Slavonia in search of materials, chiefly of timber, which was needed in enormous quantities for foundations and scaffolding. He found oak in Slavonia, fir and pine in Bavaria and Styria.

The foundation was projected by three ranges of bar-dykes round the piers. Each pier needed about 1500-2000 piles, which were driven tight side by side in the earth 18 feet deep. The pebble between the pile-ranks was dug out and the space filled with mud. The depth of the water on the left bank is 12-18 ft., on the right bank 30-36 ft. ; the gravel bed is about 20 ft. From the closed foundation place the water was pumped out and the brick and stonework laid. The stonework finished, the piles were sawn away under the water level.

The first pile was driven on 29 July 1840, the last of the 7,000 on 30 December 1841.

The bridge to-day

Clark himself had to construct engines (100 in number) for striking the piles, he had to find the necessary stones, granite in Mauthausen, Austria, and sandstone in Buda, where the excavation was under his control. He built a factory manufacturing concrete, burning bricks.

Many times the whole framework was menaced by the floating ice, but in spite of all difficulties, on 7 June 1842, the first stone was laid and the foundation stone solemnly laid on 24 August ; the whole stonework was finished in 1848.

A great part of the skilled workers were Englishmen. During the years 1842-44 62 English worker families were occupied with the bridge construction.

The different parts of the steelwork arrived from various points of the world. The wrought-iron chains were made in England by Howard and Ravenhill, other parts by Hunter and Englisch and by Harvey. The girders were cast in Diósgyör, Hungary, other pieces in Munkács and Derzsö, also in Hungary, but the enormous anchorage saddles came from Krieglach, Austria.

Clark constructed special cranes to draw up the pieces and the first link of the chain was posed on 28 March 1849. By drawing up the last one, a little misfortune happened. Something broke in the crane and the link fell on a small ship which was there in attendance for this solemn moment. Count Széchény and several notabilities were thrown into the Danube.

Meanwhile there had been other disturbing events ; a revolutionary movement had broken out in Hungary against the Germanising Habsburg emperor who collaborated with the feudal Hungarian rulers. Battles were fought on the streets between revolutionary and Imperial troops. The bridge construction was completely paralysed. The Austrians bombarded Pest from a citadel situated on a rocky hill on the right bank and half of the town was in ruins.

The commander-in-chief of the Austrian Army, General Hentzi, to prevent the rebel army from crossing the river, wanted to spring the bridge by putting gunpowder in the anchorage chambers. This anchorage lies 9 ft. deeper than the normal level of the Danube. As the concrete of that time was not waterproof, every time the river rose the chamber was filled with water. So Clark constructed pumps and machines, two machines of 25 h.p. for each chamber, to evacuate them.

When he was told of the intention of the Austrian general, he filled the chambers with water, destroyed the pumps and machines so that powder could be laid only on the roadway, where the worst damage it could do was to pierce five girders and damage some links of chain. This happened on 21 May 1849. As girders were then in supply the damage was easily to be repaired.

A few days after, newly arrived revolutionary troops occupied the citadel by a brave attack, and it was the Hungarian general's turn to plan to destroy the bridge. On this occasion Clark's animated eloquence succeeded in persuading the general to content himself with removing a part of the roadway and the bridge was saved.

The whole construction cost about £600,000.

As it stands now, it differs in several points from the original plan. The piers, which were overburdened with columns and other useless decorations, became fine simple triumphal arches of noble classical lines

The entrance to the tunnel under the Palatin Hill, Buda

and well-established proportions in which all the smallest details are in sympathy with the monumentality of the whole.

The pier tops stand 120 ft. high above water level. The opening is scarcely 20 ft. wide (the roadway has 24 ft.), permitting the traffic only for two vehicles. The main span between the centre of the piers is 665 ft., the side spans from pier centre to face of anchorage are 288 ft. each.

Instead of three chains provided in the original plan, only two superimposed eyebar chains on the other side of the roadway support the dead load and the live load.

The ending of the chains is accentuated by magnificent sculptured stone lions of impressive monumentality.

The chains continue and finish in the anchorage chamber in the middle of a compact wall under the earth the dimensions of which are 135 ft. long, 46 ft. wide and 53 ft. high.

The total length of the construction between anchorages is 1,600 ft. The anchorage saddles are of 104 tons weight each.

On each side of the roadway there are side-walks on supports.

* * *

The original steelwork of the bridge was completely changed in 1914-15.

It was said that while the old structure excelled among the bridges built in the same period not only for its beauty but also for its more highly developed construction, its capacity was inadequate for modern traffic requirements. It is possible that this was so, but I know only that the bridge answered excellently to the demands of traffic during 65 years in times when it alone had to carry the cross-Danube goods traffic, whereas now it serves only for civilian traffic. Whatever may be the reason, I regret this change.

It must be admitted that the reconstructors gave all their efforts to conserve the original noble lines of the bridge and their work is a first-class technical performance. Only it lacks that divine spark which raises the simple technical work to a creation of art.

The main outlines of the bridge remained. "Only" (as if it was a matter of *minor* æsthetic importance) the length of the links of the chains was doubled, to 12 feet instead of 6; the fine suspending hangers—which were, from a certain distance, quasi-invisible before—are now fewer but more massive and the section of the chains became a "little" thicker. Alternatively 12 or 13 bars of 14.8 × 1.4 inch, instead of 10 or 11 bars of 10.25 × 1.03 inch in the old construction, thus the cross-sectional area is increased by more than 60 per cent. The eyebars are 9½ inch in diameter, instead of 4½ of the old ones.

New stiffening trusses imitating in outline the old wooden trusses are made in steel construction and nevertheless the trusses depth does not exceed the 1/63 of the main span length (the customary ratio would be 1/50). The whole aspect of the bridge is heavier than it was before. The bridge has lost its fairy hovering lightness.

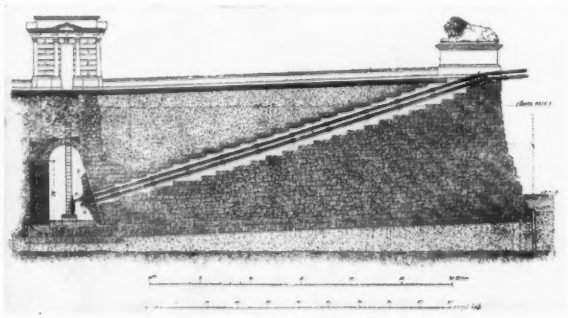
There is the same difference as between the beauty of a young maid under twenty and the "just so" marvellous wife in her maturity of forty.

But in any case, even if the aspect of the bridge had not been altered at all, I regret the suppression of the original structure because it was in itself an artistic masterpiece, worthy to be preserved.

* * *

For those who are interested in more technical details there is an excellent book by Mr. W. Th. Clark himself: "The Suspension Bridge Across the River Danube," published by John Weale in London, 1852-53 with many steel engraved plates.

For the reconstruction see the article by Mr. Joseph Beke, Engin. in the "Engineering News Record," New York, 26 June 1924.



The chain anchorage chamber

Book Reviews

MODERN SWISS ARCHITECTURE

MODERNE SCHWEIZER ARCHITEKTUR, No. 2. *Edited by Giedion, Jegher, Meyer, Schmidt and Streiff. Issued in 10 parts, 32 pl. in this part. Basel: Karl Werner. 1939. 70 Swiss francs whole series.*

There is hardly a single English modern architect unenvious of his Swiss colleagues who in their small country with one quarter our number of big cities and less wealth than we have and no outstanding advantages of prosperity have been able to achieve more good, solid, well-built modern architecture in the past three or four years than we have in more than a decade. But what matters more than quantity of works in assessing the value of a national architecture is the place that architecture takes in the national architectural conscience. It is clear that in Switzerland, architecture which here would still be considered unorthodox, even revolutionary, has found a natural place and is no longer a subject of acrimonious debate; Swiss architecture is modern architecture.

The present, and second, instalment of this survey of modern Swiss architecture contains thirty-two plates; the subjects are divided into four groups of industrial, domestic, recreation and education buildings. The industrial buildings include two breweries, one by Debrunner and Blankart being a particularly elegant clean building, entirely unemotional and safely in the vernacular. The houses also are interesting chiefly for the same reason. They show what has so often been claimed for modern architecture, that modernism, besides being international, can be and, in the hands of good architects, is adjusted exactly to locality. The chalets by Päder and Jenny, by Panozzo and by Rohr are convincingly and entirely modern, but are no less Swiss in character and material and are legitimate children of the traditional chalet.

A. and E. Roth's work is well known; here it is illustrated by the Doldertal flats at Zurich; Salvisberg's work, among the most competent and well finished of any in Europe, is illustrated by an infants' and mothers' home at Berne, a rather formal, even pompous building. All the houses are worth notice. The one sports building is a swimming bath at Langenthal by Egger, and there is a school by Hohloch at Oberwintertur.

Each building is shown by good photographs and plans which are all clear to read, with, in some instances, details as well; there is an interesting structural detail of roof, cornice, window, etc., of a house by Altherr and through the balconies of Gorbarel's sanatorium at Davos. Each building is given an English description with particulars of cost, construction and finish.

HOUSES FOR LEISURE

WEEK-END HOUSES, COTTAGES AND BUNGALOWS. *Edited by Alan Hastings, with introduction by Hugh Casson. 4to. 112 pp. London: Arch. Press. 1939. 7s. 6d.*

There have been more pot-boiling wretched books published on small houses than on any other section of contemporary architecture—a fact for which the taste of the ignorant public is presumably responsible (that at least is a defence beneath which architects can shelter uneasily): it is therefore pleasant to welcome a good book on small houses, well-chosen examples, well presented.

Week-end Houses, Cottages and Bungalows follows the usual plan, a page or sometimes two to each house, three or four photographs (in this book good photographs almost without exception) and an assortment of technical information which generally includes notes about the site, the principal plan features, the method of construction, finishes and the cost. The cost of some houses is given as a lump sum, in others as a cube figure and sometimes both. No architect is ever satisfied with the amount of information about costs that can be given by a bare figure, but more cannot generally be expected.

There are over sixty examples in the book, arranged in three groups: houses and cottages, foreign and bungalows, each group starting with the most expensive and largest houses. The houses range from £3,000 to £500 and the bungalows from £1,458 to £510; the smallest house and bungalow each have two bedrooms, living room, kitchen and bathroom.

Mr. Hugh Casson has contributed a good foreword of about 12 pages, full of simple wisdom for those about to choose their architect—the people for whom the book may not unfairly be considered to have been designed, but architects, too, will find it gives them a useful instructive record.

LIBRARIES

PUBLIC LIBRARY LIGHTING, VOL. 2. ARTIFICIAL LIGHTING, GENERAL PRINCIPLES AND PLANNING. *By R. D. Hilton Smith. 8vo. 95 pp. Gravesend: Philip. 7s.*

All those who read with benefit Mr. Hilton Smith's first book on library lighting must, like the author of this review, have been eagerly awaiting the second volume. The first dealt with natural lighting in a direct and constructive way that has seldom been bettered in a book written, as its author was the first to admit, by one who was not an "expert," but that much rarer and much less troublesome person an intelligent user who showed not least that he was capable of using experts.

Artificial lighting has proved to be too large a subject for a single volume in this series, so this volume is divided into two parts, general principles and special applications. The second volume will be ready in a few months, after which it can be hoped that Mr. Hilton Smith will have no peace until he has completed similar surveys of other matters of library amenity and equipment.

There are no hard and fast rules for artificial lighting; however good it is, almost invariably the quality and quantity of artificial light must be less than the quality and quantity of well-directed daylight, but humans have somehow adjusted themselves to be content with a standard lower than is generally obtained by daylight and lower than can often be obtained by well-designed artificial light. The problem of artificial lighting is not solved, as the author states repeatedly, merely by adding more light; a careful balance of quantity and quality is necessary. Good quality light, that is light of the

right colour, free from shadows and free from glare from uncovered sources, with near and distant intensities adjusted so that momentary lifting of the eyes from the reader's work will not throw his eyes as it were off their balance, really good quality lighting, designed with all its uses in mind, can often be of much lower intensity than would be necessary with a badly designed installation.

The introductory chapter courses easily over the generalities and suggests, incidentally, the value of new lighting equipment as often the cheapest and most effective means of rehabilitating an old building. Chapter Two deals with quality of light and defines some terms such as foot-candle, plane of work, etc., and shows that measured values mean little without reference to the elements of quality. The importance of the colour and decoration of the room as a factor to be considered in designing an installation are emphasised, and a table of reflection factors of 32 colours is given; also, and of first importance, the rapid deterioration of reflection values of walls and ceilings owing to dust is drummed home with significant figures. In Chapter Three, "How much light?", the author cautiously avoids the blandishments of the "more light" salesmen. This chapter includes a table of lighting values recommended by various authorities for various library departments and particular locations, with the results of tests in three American libraries. The experts all differ, and Mr. Hilton Smith gives a separate table of his own recommendations based on the Illumination Engineering Society's tables of 1936 as a suitable indication of "best current practice." The fourth chapter describes the method of measuring light with a light-meter, and the fifth and concluding chapter deals with some matters of general planning, the necessity for having wiring accessible and the general installation "flexible" to allow for change in use or detail of equipment.

After Chapter Five is an impressive bibliography which includes a reference to every publication of importance on the subject in library and technical literature, and a list of forty-eight "buildings to see," not all libraries, in Great Britain and abroad, chosen partly because the standard of lighting in them is good and partly because they represent most systems creditably.

Mr. Hilton Smith has served his readers well; it is not the idle use of a phrase, characteristic of those reviewers love to use to round off their remarks, to say that this is seven shillings worth of first-class guidance which every librarian should possess; but if the sales of the book are as big as they should be it is a pity that its publisher could not make the price lower; seven shillings is a lot to pay for 95 pages, including preliminaries and index, even if not a word in them is wasted.

HERALDRY ANCIENT AND MODERN

HISTORIC HERALDRY OF BRITAIN. *By Anthony R. Wagner, Portcullis Pursuivant. 4to. 118 pp. + 28 pl. Oxford Univ. Press. 1939. 18s.*

The "Court of Honour" at the British Pavilion in the New York World Fair is ornamented with the arms of one hundred and forty-two outstanding figures from the history of Great Britain and Ireland chosen from within the period of scientific heraldry which started in the second quarter of the 12th century. The choice of names was clearly one of great difficulty if due regard was to be paid to the fair and proportionate representation of each century and also to the qualities of the arms to be depicted, but Mr. Wagner and his collaborators have produced a roll of honour which is catholic in its reference to national talent in feats of war, civil government, the arts and sciences. The shields executed in coloured relief were carried out by Mr. Gilbert Bayes and Mr. Cecil Thomas from designs by Mr. Gerald Cobb under Mr. Wagner's direction.

Heraldry is a traditional art, essentially, which early in its history attained a quality of presentation which no later heraldic artists have succeeded in bettering, though in the later centuries, when heraldry had lost its true armorial significance, a new and appropriate form developed which has been used by the artists employed for this heraldic display. An attempt has been made to follow worthy precedents which has succeeded in those shields where abstract or abstracted charges only are involved, but the representation of naturalistic or "proper" charges is banal in the extreme; horses and all the variety of live stock which occur so frequently in shields of all periods are insipid and unheraldic not merely in form, but in the more subtle elements of characterisation. The braggadocio knights of mediæval coats ride weak, prancing steeds from a Richmond hack stable, and most beasts contrive to smirk behind their theatrical snarls or challenging eyes. These were faults no mediæval heraldic artist ever made, nor even the 18th century artists who adjusted heraldry so aptly to their time that this falsity did not appear.

Mr. Wagner's text is the grand piano thrown in with the pound of tea. In few pages he has given one of the clearest and most authoritative expositions of heraldry there is, the descriptions of the shields and the potted biographies of their bearers are no less excellent. To finish up he combines a subject index with a full glossary.

A SCHOOL BOOK OF ARCHITECTURAL HISTORY

OUTLINES OF THE HISTORY OF ARCHITECTURE. PART 4. MODERN ARCHITECTURE WITH PARTICULAR REFERENCE TO THE UNITED STATES. *By Rexford Newcomb. 4to. 318 pp. New York: John Wiley. London: Chapman & Hall. 1939. 20s.*

The author, who is Professor of the History of Architecture and Dean of the College of Fine and Applied Art at the University of Illinois, concludes his schematic history with this volume. The outline is more than a history book, it incorporates a system of teaching based on the belief that half the value of a course of education lies in the reading, reports and library research made by the student. This book is a guide to research. The primary division is national, U.S.A., France, England, Germany, Low Countries, Scandinavia and Italy. The U.S.A. section fills about two-thirds of the book, and is a useful index to the study of the history of recent American architecture; the smaller sections relating to work in other countries scarcely stand up to the completeness of the U.S.A. chapters.

Each chapter is subdivided into LAND: geography, geology, etc. PEOPLE: history, important events tabulated, religion, social, political and economic conditions. ARCHITECTURE: the structural system, the decorative system, types of buildings, examples subdivided stylistically, characteristics of style (sometimes rather trite) and bibliography (good and catholic).

The modern is made to include all architecture since approximately the mid-eighteenth century.

COLLEGIATE GOTHIC

THE ARCHITECTURE OF DUKE UNIVERSITY. *By William Blackburn. 4to. 74 pp. + 20 plates. Durham, North Carolina: Duke University Press. 1939. $4.50.*

The loyalty of American universities to Gothic architecture, or what they call "collegiate Gothic," is one of the most fantastic and unreasonable features of a fantastic and unreasonable world. It is probable that future historians will be considerably puzzled to decide why organisations which exist to train young men and women for life in a modern world should voluntarily house their students in buildings which were only partially suitable for the needs of mediæval students. There is an academic arrogance in this Gothic enthusiasm which defies comment in a paper written for contemporary architects, nevertheless we can allow ourselves to be amazed even if there is no place for admiration. Mr. Trumbauer, the architect, acknowledges his debt to Oxford and Cambridge (Gothic only) to Haddon Hall, to Bell Harry Tower, Canterbury, to the Palace of the Popes at Avignon, and St. Buryan, Cornwall; and Mr. Bonawit, who did the stained glass, to Chartres and Bourges and Nieder-Haslach, Lübeck and Norbury, Derbyshire. All this is enthusiastically and indeed imaginatively translated into North Carolina—a lasting memorial to lack of confidence in contemporary architecture.

TRAVEL BOOKS

THE LAND OF FRANCE. *By Ralph Dutton and Lord Holden. 8vo. 150 pp. + 133 photos. London: Batsford. 1939. 8s. 6d.*

The joint authors somewhat disarm criticism by admitting that France, a country four times the size of England, cannot be adequately dealt with in 150 pages, especially when so many aspects are touched upon. Architecture and history form the basis of the book, but geological, industrial and even gastronomic comments are included. The writers' aim has been to describe the general character of the eight districts into which they divide France, by referring to what is most typical in each area, dwelling mostly on the lesser known places and touching but briefly on those widely known. Thus it comes about that Avignon and Orange are barely mentioned and that Mont St. Michel and the Pont du Gard are passed over completely.

There is no allusion to Vaison, a little city on the River Ouveze in the Dept. Vaucluse. The recent extensive excavations there, taken together with the Roman theatre and bridge, give this town considerable archæological importance. In the early part of the year the river rushes torrentially below the cliff upon which the medieval portion of the city is built, and the view looking upstream to the great single arch of the Roman bridge, with snowcapped Mt. Ventome in the background, is unforgettable. There are also a Romanesque cathedral with cloisters, a ruined castle and a (?) tenth-century chapel with a triangular apse.

Perhaps the least visited part of France is that lying between the Garonne and the Pyrenees, and in dealing with this district the authors have allowed themselves more space to the great gain of the reader, for their descriptions are very interesting.

That Britanny should be described as east of Maine (p. 23), instead of west is an obvious slip, but there is confusion with regard to the west towers of Rouen Cathedral. The N.W. tower of St. Romain dates from the XIIIth and XIVth centuries and not the XVth, and it is that tower which is surmounted by the "sloping secular roof," not the Tour du Beurre, the roof of which is hidden by the high pierced and pinnacled parapet.

The book is illustrated by 132 mostly excellent photographs, a coloured plate after Whistler and useful mapped endpapers.

F. HERBERT MANSFORD [*F.*]

WEST COUNTRY. *By C. Henry Warren. 8vo. 120 pp.+169 photos. Batsford. 1939. 8s. 6d.*

EAST ANGLIA. *By Doreen Wallace. 8vo. 120 pp. + 148 photos. Batsford. 1939. 8s. 6d.*

THE LAND OF EGYPT. *By Robin Fedden and A. Costa. La 8vo. 120 pp. + 129 photos. Batsford. 1939. 12s. 6d.*

The West Country is the seventh volume in Batsford's "Face of Britain" series. Mr. C. Henry Warren knows his countryside and the towns and villages and has provided a story to accompany the one hundred and sixty-nine magnificent photographs that takes the reader happily through the most favoured counties of England. Mr. Warren is a good companion who is never boringly anecdotal or pedagogic. The book may be said to exist for the photographs, which are excellent.

A useful feature of this series of books is the emphasis they give to regional unities. East Anglia is a unity with its characteristics as clearly defined and as proudly recognised by East Anglians as any of those which geographically and socially define, for instance, Wales; in fact the definition of East Anglia is greater than that of "the West Country." Doreen Wallace has written a thoroughly good guide, she knows what she likes and even dares to criticise Lavenham Church; the whole district, "everything east of the Great North Road, about as far north as Boston" is covered as well as it could be. Though, of course, every true East Anglian would like more about his particular haunts, no one can have other than praise for the author's generous and careful observation.

The Land of Egypt is another book of the same type: a travelogue text to accompany the publication of one hundred and thirty-five photographs by Mr. A. Costa. These are beautifully taken and reproduced and give an intelligently composed and revealing picture of the country, its buildings and people.

SMALL HOUSES IN ENGLAND

COUNTRY LIFE BOOK OF SMALL HOUSES. *Edited by R. Smithells. 4to. 76 pp. London: Country Life. 1939. 3s. 6d. cloth, 2s. 6d. paper.*

Mr. Smithells has gathered together two or three photographs and a plan of each of about 35 small houses. His choice is what is euphemistically called "catholic," which means "all comers welcomed and no questions asked." Apart from the fact that most of the houses are in the £500-£1,000 group, there has been no obvious system in their selection or arrangement. The costs of the houses are generally given, but without any statement of whether fences, paths, etc., are included or notes on abnormal conditions such as inaccessibility of site which may have affected price. The quality of the photographs is deplorably below *Country Life's* standard, some are just bad exposures, others are taken from bad view-points, some are badly made-up; for instance, the plinth of the house on p. 50 has been trimmed off. The presentation of 34 plans will be useful, but the quality of the book is in accordance with its low price, only 3s. 6d. cloth and 2s. 6d. paper.

FURNITURE

OLD FURNITURE FOR MODERN ROOMS. *By Edward Wenham. 8vo. 204 pp.+8 pl. London: Bell. 1939. 7s. 6d.*

This is a simple guide to identifying and judging the shop values of old furniture with hints on furnishing. "Modern" in the title means houses to-day; there is no attempt made to discuss the interesting problem that some people may think is implied by the title—the problem of old furniture in "modern style" rooms.

However much we may deplore any addition to the many incentives that already exist to bolster up the old furniture market, we can none the less like Mr. Wenham's book for doing it very charmingly.

Accessions to the Library

1938-1939—XV *(concluded)*

Lists of all books, pamphlets, drawings and photographs presented to or purchased by the Library are published periodically. It is suggested that members who wish to be in close touch with the development of the Library should make a point of retaining these lists of reference.

Any notes which appear in the lists are published without prejudice to a further and more detailed criticism.

Books presented by publishers for review marked R.
Books purchased marked P.

* ***Books of which there is at least one copy in the Loan Library***

BUILDING SCIENCE

Construction

QUATUOR CORONATI LODGE

Ars quatuor coronatorum *&c.* Vol.*xlviii. 1939. R.
Including : Flather (David). The Foundation stone. Knoop (D.) & Jones (G. P.). The London mason of the seventeenth century.

× MS.

BOWYER (ROY) 693·54/55+694·54/55] 69.059.5
Framed structures : an account of building in a salt mining area. [Counteracting subsidence.] (Thesis for Final Examination, July.)
typescript, *Penc. D.* & *Ph.* 12¾″. 1939.
Presented by the Author.

D.S.I.R.

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH: BUILDING RESEARCH

Technical papers : 693.55
No. 22. Studies in reinforced concrete :
v. Moment redistribution in reinforced concrete. W. H. Glanville and F. G. Thomas.
1939. 1s. 3d. R.

GRUNDY (R. F. B.) 693.55 [72.08 : 34 (42.1)
The Essentials of reinforced concrete design. . . . with special reference to both old and new L.C.C. regulations and . . . code of practice of the Building Research Board.
9¾″. xi + 134 pp. Lond. : Chapman & Hall. 1939. 10s. 6d. P.

Sanitary Science, Equipment, Proofing

LUMLEY (W. G. *and* E.) 696.1 : 614] 34
The Public Health Acts annotated *etc.*
11th ed. in 4 vols. Vol. ii.
9¾″. Lond. 1939. £4 6s. 6d. P.

INLAND WATER SURVEY COMMITTEE 696.11 : 628.1 (41/42)
Extract from the surface water year-book of Great Britain 1936-37. . . . (Ministry of Health and Scottish Office.)
pam. 13″. Lond. : H.M.S.O. 1939. 4s. R.

COAL UTILISATION COUNCIL 697 : 725.5
Heat economy in hospitals and institutions. (Technical bulletin No. 12.)
pam. 8″. Lond. [1939.] 6d. R.

× MS.

MASON (O. J. C.) 699.841
Earthquake resisting construction. (Thesis for Final Examination, July.)
typescript *& Repr.* 12″. [1939.]
Presented by the Author.

ANDERSON (DAVID) 699.895
Lecture on the design of bomb-proof shelters. (Institution of Civil Engineers.)
pam. 8½″. Lond. 1939. 6d. R.

699.895

HOME OFFICE : AIR RAID PRECAUTIONS DEPARTMENT
Provision of air raid shelter.
pam. 9¾″. Lond. : H.M.S.O. 1939. 2d. R.

STRADLING (R. E.) 699.895
*Lecture on experimental work on A.R.P. (Institution of Civil Engineers.)
pam. 8½″. Lond. : Clowes. 1939. 6d. R. (2).

WYATT (F. J. C.) 699.895 : 698.1
Lecture on camouflage. (Institution of Structural Engineers.)
pam. 8½″. Lond. 1939. 6d. R.

PRIVY SEAL (LORD)'S OFFICE 699.895 : 725.4
A.R.P. in industry. A revised . . . description of the Civil Defence Act, as it affects . . . industrial and commercial establishments.
pam. 9¾″. Lond. 1939. R.

ENGINEERING

ENGINEERING ASSOCIATION OF CEYLON
Transactions for 1938.
1938. R.

TOPOGRAPHY

DUTTON (RALPH) *and* HOLDEN *Lord* 91 (44)
The Land of France.
8½″. viii+152 pp.+ pls. Lond. : Batsford. 1939. 8s. 6d. R.

E.W. 91 (495) : 912

DE-LA-HAYE (GUILLAUME), *engraver,* ? *cartographer*
Recueil de cartes géographiques, plans, vues et médailles de l'ancienne Grèce, relatifs au voyage du jeune Anacharsis ; précédé d'une analyse critique des cartes [by Barbié du Bocage].
4o. Paris. 1790. (7s. 6d.) P.

BERENSON (MARY) 91 (612/619)
A Vicarious trip to the Barbary Coast [modern Libya : Tripolitania and Cyrenaica].
8¾″. xii+146 pp.+xxiii pls. Lond. : Constable. 1938. 7s. 6d. R.

TOWN AND COUNTRY PLANNING, GARDENS, RURAL PRESERVATION

MINISTRY OF HEALTH 711
Town and country planning. [Conflicting proposals.] (Circular 1834.)
leaflet. 9¾″. Lond. 1939. R.

LEWIS (H. M.) 711.4
City planning why and how.
8″. xxi+257 pp. New York : Longmans. 1939. ($2.50.) R.

DENNIS (J.) 712
The Landscape gardener ; *&c.*
8o. Lond. 1835. (£1 1s.) P.

SCAPA SOCIETY *&c.*
Annual report June 1938—June 1939.
[1939.] R.

BIBLIOGRAPHY

SCIENCE LIBRARY (SCIENCE MUSEUM LIBRARY) 016 : 5/6
List of publications. (*Including* Classified list of bibliographies.)
dupl. typescript. 13″. Lond. [1939.]
Presented by the British Society for International Bibliography.
Also 24 guides, to towns and individual buildings, English and foreign.
Presented by Mr. S. Rowland Pierce [*F.*].

Obituaries

SIR PERCY WORTHINGTON

The history of Sir Percy Worthington's life has been permanently recorded by the many beautiful buildings he designed and they serve as a memorial such as few men can achieve. His buildings, however, are not the only legacy he has left to his country and no record of his life's work is complete without mention of some of his other activities.

His loyalty to the Manchester Society of Architects for over forty years must have influenced numberless members of his profession—he was a regular attender at the sessional papers and rarely missed a meeting, although he was often tired after his day's work and would have been well advised to have spent a quiet evening at home. Many years ago he was President of the Society and continued his active support for the rest of his life. He was chairman of the Education Committee for many years—his insistence on the highest standard of work and conduct, his kindness in criticism and the background of his own fine work made him the ideal chairman. His influence will be reflected in the work of many former students.

The Manchester Civic Advisory Committee found in him a chairman to express its aspirations and to work quietly and anonymously for the betterment of the amenities of the city. He gave of his very best to this work and in addition to his duties as chairman he designed a beautiful layout of the streets adjoining the Cathedral and Chethams Hospital—it is to be hoped that some day the scheme will materialise. To work with Worthington was to be inspired by him, his conscience never allowed him to give less than his best in his work, or if you had the privilege of enjoying it, in his friendship.

FRANCIS JONES [*F.*]

The work of the firm of Thomas Worthington & Sons will be carried on by Mr. J. Hubert Worthington [*F.*] and Mr. T. Shirley Scott Worthington [*A.*].

W. J. W. FORBES [*F.*]

We regret to record the death in Perth on 3 April of Mr. Walter James Waldie Forbes, President 1933-1935 of the Royal Institute of Architects of Western Australia. He was born in Ireland in 1869 and received his training in the office of Mr. Walter Scott Law, who with Mr. E. E. Raht, an American, was erecting the Equitable Buildings in New South Wales and Victoria.

Mr. Forbes first worked as an assistant in Melbourne and Sydney. In 1904 he began to practise on his own account under the title of Wilkinson & Smiths, with which firm he had worked since 1897, the title being changed in 1905 to Hobbs, Smith & Forbes, and in 1932 to Hobbs, Forbes & Partners, under which title the practice is being continued by Mr. H. T. Forbes [*A.*] at 135 St. George's Terrace, Perth.

Among Mr. Forbes' chief architectural works are the Orient Line buildings, Shell House, Boan Brothers' building, Bank of New South Wales and branches, Union Bank and branches, and Surrey Chambers, all at Perth. From 1921 to 1939 Mr. Forbes was a member of the Architects' Registration Board of Western Australia.

E. J. TANNER [*F.*]

We record with regret the death on 11 June of Mr. Edwin John Tanner. He was born in 1887, and received his architectural training at the A.A. In 1913 he entered into partnership with Mr. Henry Tanner, Mr. W. B. Dukes, Mr. W. H. Tanner and Mr. E. T. Dowling, and practised at 3 Hanover Square and 134 Fenchurch Street. Mr. Tanner, besides being responsible for various domestic buildings, built a canteen at Beeston and offices and a warehouse at Stamford Street for Messrs. Boots Pure Drug Co. ; an extension to the Raleigh Cycle Factory at Nottingham ; Messrs. Hedges & Butler's premises and Messrs. Carrington's premises, both in Regent Street.

A. B. WILSON [*Ret. A.*]

We have recently received notice of the death on 5 May 1938 of Mr. Alexander Brown Wilson. He was born in 1857 and became an Associate of the Institute as long ago as 1884, retiring in 1933.

He worked in Brisbane from 1873 for ten years, receiving his training in the State Works Department, Brisbane. In 1883 he came to England to take his qualifying examination and on his return to Brisbane the following year started to practise in Brisbane. In 1920 he took his son, Mr. R. M. Wilson, M.E., A.M.I.E.(Aust.), F.Q.I.A., into partnership and the practice is being continued by him.

Among Mr. Wilson's chief architectural works are the Y.M.C.A., Brisbane ; warehouses for Messrs. Burns Philp, Barnes & Co., and Shell Co. ; Messrs. Morrows' factory and the reconstruction of Ann Street Presbyterian Church. Mr. Wilson was for many years honorary architect for the Presbyterian Church of Queensland and carried out a considerable amount of church work. Mr. Wilson was also an authority on acoustical work.

He was a keen supporter of the Queensland Institute of Architects and was three times its president and one of its earliest members. In 1890 he was a member of a joint committee of the Institute of Architects and the Municipal Council for drafting a Building Act for the city of Brisbane. In 1912 Mr. Wilson was largely responsible for the introduction of the quantity system to Brisbane.

A. P. THOMAS [*A.*]

Mr. Arthur Philip Thomas, who was born in 1887, died on 24 July. He received his training at King's College, London, and began to practise in 1919 in partnership with his father, Mr. P. J. Thomas, of the firm of P. J. Thomas & Son. Afterwards he worked for ten years as architect to the Dunraven Estates, Ltd., Bridgend. He was also at one time chairman of the Bridgend Urban District Council.

GORDON KENWORTHY [*L.*]

Mr. Gordon Kenworthy, who died on 6 July, received his training in the office of Mr. Frederick W. Dixon, of Oldham. He began to practise in 1919 in partnership with Mr. Thomas J. Hill [*F.*] and Mr. Frank A. Meadows [*L.*], who will continue the practice. Mr. Kenworthy's work was very largely concerned with the building of cotton mills. He was born in 1889.

Notes

THE CENTRAL REGISTER

Architects who are (*a*) members of the R.I.B.A., (*b*) members of an R.I.B.A. Allied Society, or (*c*) Registered Architects not attached to any body, who have filled up cards of enrolment in the Central Register were asked to state if they were already members of Territorial, Reserve or Auxiliary Forces, or under any other obligation for National Service.

It is desired to keep the information on the register cards up to date, and architects who, since enrolling, have undertaken or in future undertake obligations *involving full-time service in time of war with H.M. Forces (Regular, Territorial, Reserve or Auxiliary), or with the Civil Defence Services*, are therefore requested to inform the Secretary of the R.I.B.A. Emergency Panel, 66 Portland Place, London, W.1, who will pass on the information to the Ministry of Labour.

It would be appreciated if architects would take similar action in notifying the Secretary of the R.I.B.A. Emergency Panel of :—

(*a*) Change of home address,

(*b*) Change of employer,

(*c*) Acquisition of additional professional qualification,

or any other matters likely to affect the usefulness of the Register.

R.I.B.A. MAINTENANCE SCHOLARSHIPS IN ARCHITECTURE

The Royal Institute of Architects announce that the following Maintenance Scholarships have been awarded for the year 1939-1940 :

An R.I.B.A. (Houston) Maintenance Scholarship of £100 per annum to Mr. J. V. Barnett, of London.

The "Builder" Maintenance Scholarship of £70 per annum to Mr. J. S. Minton, of London.

The Maintenance Scholarships previously awarded to the following candidates have been renewed for a further period of one year :

Mr. F. R. Greenen (Bartlett School of Architecture, University of London)—R.I.B.A. (Houston) Maintenance Scholarship of £100.

Mr. M. Shepheard (Liverpool School of Architecture, University of Liverpool)—R.I.B.A. (Houston) Maintenance Scholarship of £100.

Mr. J. L. Ware (Bartlett School of Architecture, University of London)—R.I.B.A. (Houston) Maintenance Scholarship of £100.

LEVERHULME SCHOLARSHIP IN ARCHITECTURE

The Leverhulme Scholarship tenable at the Architectural Association School of Architecture, value £1,000, which includes payment of fees and maintenance for a period of five years, has been awarded this year to Mr. John F. Ashton, of Bournemouth, Hants.

OUTLINE COURSES OF STUDY AND LISTS OF BOOKS FOR THE INTERMEDIATE AND FINAL EXAMINATIONS

The Council, on the recommendation of the Board of Architectural Education, have approved revised Outline Courses of Study and Lists of Books for the Intermediate and Final Examinations. Copies may be obtained free on application to the Secretary to the Board of Architectural Education, R.I.B.A., 66 Portland Place, London, W.1.

UGANDA APPOINTMENT

Mr. C. T. Mitchell, Architect to the Uganda P.W.D., wishes to inform all applicants for the vacant appointment referred to in the JOURNAL of 6 March 1939 that the appointment has now been made. Mr. Mitchell wishes to apologise for the delay in advising applicants.

NOTES FROM THE MINUTES OF THE COUNCIL 10 JULY 1939

Membership of the Council

The President welcomed the new members of the Council.

Appointment of Vice-Presidents

The following were appointed as Vice-Presidents for the Session 1939-1940 :—Mr. Edward Maufe, Mr. A. H. Moberly, Mr. Howard M. Robertson.

Appointment of Hon. Secretary and Hon. Treasurer

Mr. W. H. Ansell and Mr. L. Sylvester Sullivan were re-appointed as Hon. Secretary and Hon. Treasurer respectively for the Session 1939-1940.

Appointment of Committees

The various Committees were appointed for the Session 1939-1940.

British Architects' Conference, Dublin

On the proposition of the President it was resolved by acclamation that a cordial vote of thanks be passed to the President and Council of the Royal Institute of the Architects of Ireland and to all those who offered hospitality and contributed to the success of the recent Conference in Dublin.

Examination for the R.I.B.A. Diploma in Town Planning

The Board of Architectural Education reported that the Town Planning Joint Examination Board had approved certain revisions to the syllabus for the Examination for the R.I.B.A. Diploma in Town Planning to come into operation for the 1940 examination.

The Athens Bursary 1937

The Board reported that they had approved the report on his tour submitted by Mr. J. S. Allen, Athens Bursar, 1937.

Outline Courses of Study and Lists of Books for the Intermediate and Final Examinations

The Council approved the Outline Courses of Study and Lists of Books for the Intermediate and Final Examinations submitted by the Board.

R.I.B.A. Appeal

It was agreed to send the cordial thanks of the Council to the Board of Architects of New South Wales for their generous gift of fifty guineas to the fund for the reduction of the debt on the R.I.B.A. building.

Gift of Drawings by Mr. Harry W. Roberts [Hon. A.]

The cordial thanks of the Council have been conveyed to Mr. Harry W. Roberts [*Hon. A.*] for his kindness in presenting to the Institute some drawings of Dublin as a memento of the recent Conference held there.

Presentation of Bronze Portrait Head of Mr. Goodhart-Rendel to the R.I.B.A.

It was agreed to accept on behalf of the Institute the bronze portrait head of Mr. Goodhart-Rendel by Dora Gordine which has been presented to the R.I.B.A. and to convey the Council's thanks to the donors.

The Institute of Builders

It was agreed to set up a Joint Committee of representatives of the R.I.B.A. and the Institute of Builders with the following terms of reference :—

To consider the architects' and the builders' work and responsibility, their education and its appropriateness, educational needs and interests common to architects and builders, conditions and trends in education, schools, practice, and industry helping or hindering efficiency and sound development, and to report thereon for the information of the Councils of the Royal Institute of British Architects and the Institute of Builders.

R.I.B.A. Architecture Bronze Medals: Liverpool Architectural Society

The Council formally approved the award of the Jury in favour of the Liverpool Orphanage, Woolton Road, Liverpool, designed by Messrs. Barnish, Silcock & Thearle.

APPOINTMENTS

Fifteenth International Congress of Architects, Washington, 24 to 30 September: Official Delegates

Mr. H. S. Goodhart-Rendel, Past-President; Sir Raymond Unwin, Past-President; Mr. T. Forbes Maclennan, President of the Royal Incorporation of Architects in Scotland; Mr. John J. Robinson, President of the Royal Institute of the Architects of Ireland; Mr. W. Curtis Green, R.A.; Lieut.-Colonel H. P. Cart de Lafontaine, O.B.E., T.D.*

Representative on Court of Governors of the University of Sheffield

Mr. C. M. E. Hadfield [*F.*].

Annual Meeting of the General Council for the National Registration of Plumbers, Torquay, 12 July 1939. Mr. J. C. C. Bruce [*F.*].

British Standards Institution Technical Committee CEB/6: Cast Concrete Products. Mr. R. J. Angel [*F.*].

*On the advice of H.M. Government these delegates will not go to the U.S.A. for the Conference.

MEMBERSHIP

The following members were elected:—As Fellows, 22; as Associates, 19; as Licentiates, 17.

Election 23 October 1939

Applications for membership were approved as follows:—As Fellows, 18 applications; as Associates, 16 applications; as Licentiates, 7 applications.

Election 6 November 1939

Applications for membership from overseas candidates were approved as follows:—As Fellows, 3 applications; as Associates, 6 applications.

Reinstatements

The following ex-members were reinstated:—As Fellow, Frederick Arthur Walker; as Associate, Stanley Leopold Williams.

Resignations

The following resignations were accepted with regret:—Gordon Hemm [*A.*], Andrew George Cole [*L.*], Henry Sulley [*Retd. L.*].

Transfer to the Retired Members Class

The following members were transferred to the Retired Members' Class:—As Retired Fellow, William Henry Herbert Marten; as Retired Associates, John Ormrod, William Henry Town.

EXAMINATION RESULTS

THE R.I.B.A. EXAMINATIONS JULY 1939

The Final Examination

The Final Examination was held in London and Edinburgh from 5 July to 13 July 1939.

Of the 217 candidates examined, 127 passed (58 of whom sat for and passed in Part 1 only) and 90 were relegated.

The successful candidates are as follows:—

ANSELL, Harry Benson (*Part 1 only*); ATHERTON, Eric Sydney William (*Part 1 only*); BEE, Philip Raymond (*Part 1 only*); BELL, Guilford Marsh; BETHELL, George Alfred (*Part 1 only*); BOWYER, Roy; BRETT, Hon. Lionel Gordon Baliol (*Distinction in Thesis*); BROWN, Reginald Wallace William (*Part 1 only*); Bruce, Albert Henry (*Part 1 only*); CARPENTER, James Edward Benham; CARTER, Gordon Ernest (*Part 1 only*); CAUSON, Albert Henry (*Part 1 only*); CHAPMAN, Ronald Frederick Henry; CHAPPELL, Denis; CHIVERS, Thomas Arthur (*Part 1 only*); CLARK, Donald Jack; CLAYTON, Robert Wallace (*Part 1 only*); CORNER, Thomas Henry (*Part 1 only*); DALE, Bernard Henry (*Part 1 only*); DALE, George William; DALEY, Harry (*Part 1 only*); DAVISON, John George (*Part 1 only*); DEWEY, Alan Clifford; DICKSON, Frederick William (*Part 1 only*); DIXON, Joseph Fielden; EATON, Thomas Charles Richard (*Part 1 only*); EDWARDS, Anthony Drew; ELLIOTT, Raymond Foster (*Part 1 only*); ELLIS, Thomas Bickerstaff Harper; ELSOM, Cecil Harry; FAIRBAIRN, George William; FARMER, Cyril Parsons (*Part 1 only*); FARMS, Kenneth William; FINCH, Francis Edward; FISHER, Osborne Kirkton; FOWKES, Charles Roy; GREEN, Norman (*Part 1 only*); GREENWOOD, Colin Prince; GREENWOOD, Jack; GRIGGS, Cyril Percy (*Part 1 only*); GUMMER, Clifford Walter; HADDY, Joseph Alan (*Part 1 only*); HARRIS, Eric Bright; HARRISON, William Thomas (*Part 1 only*); HARSE, Morris Edwin (*Part 1 only*); HAZLEWOOD, William Ronald (*Part 1 only*); HEYWOOD, Leslie Albert John (*Part 1 only*); HIBBERD, Leo Roy; HICKLIN, Francis Kenneth; HINDLE, Cyril; HINDSHAW (Miss) Christina (*Part 1 only*); HOLE, Wilfred Edgar (*Part 1 only*); HORSFIELD, Alexander James (*Part 1 only*); HUNT, Henry Arthur; HUNT, Lionel Bernard; HURST, Ronald Walker; JAMES, Bernard Vincent; JOHNSON, Frank Percival (*Part 1 only*); KAUFMAN, Israel; KELLETT, Keith Gordon (*Part 1 only*); KINTON, Robert Kenneth; KNOTT, Ronald Frank (*Part 1 only*); LACK, Kenneth Rivers (*Part 1 only*); LARRINGTON, Clifford Talbot (*Part 1 only*); LASDUN, Denys Louis (*Part 1 only*); LEE, Gordon; LEVER, Herbert; LOMAS, Leslie Clarson; LOWE, Cecil William; LOYD, John Clulow; LYON, Neville Arthur; MARTINDALE, Christopher Bernard (*Part 1 only*); MASON, Owen John Currie; MEADOWS, Robert Ragland (*Distinction in Thesis*); MENAGE, Frederick Charles; MENCE, Stanley Richard; MILLS, Douglas George (*Part 1 only*); MILSOM, Frank George; MURPHY, Joseph William (*Part 1 only*); MYERS, Denys; NETTLETON, Cyril Neville; OEXLE, John Surridge (*Part 1 only*); OLIVER, George Herbert; ORAM (Miss) Bertha; OVERBURY, Thomas (*Part 1 only*); PACK, Edwin Victor; PAGE, Robert (*Part 1 only*); PEARCE, Nathaniel Frank; PRATT, Arthur Ronald; PRINCE, William Howard; PURNELL, Norman Keet (*Part 1 only*); Raynham, James Ernest (*Part 1 only*); RICHARDSON, Albert Edmund (*Part 1 only*); RITCHIE, David Archibald Hugh (*Part 1 only*); ROGERS, Vernon William; SANDON, Eric Charles Rothwell; SCOTT, Lewis George; SINGER, Thomas Stanley (*Part 1 only*); SKETCHLEY, John Ratcliffe; SMITH, Leonard Richard (*Part 1 only*); STRONG, Alfred John (*Part 1 only*); SUNDERLAND, Eric Stanley; SURMAN, John Maxwell (*Part 1 only*); TAGHOLM, Christopher Glyn; TAPNER, Benjamin Charles (*Part 1 only*); THORPE, Raymond Banks; TOCHER, William Rome (*Part 1 only*); TOOTH, Douglas Ronald Noel; TORRY, John Frederick; TOWNROW, Stanley; TURNER, Frank (*Part 1 only*); TURNER, Newman George Effingham (*Part 1 only*); TYLER, Richard Michael Townsend (*Part 1 only*); WALLS, Arthur William; WARD, John Frank (*Part 1 only*); WATSON (Mrs.) Beryl Leila; WELLS, Clifford Burnard (*Part 1 only*); WHITEHORN, John Edward; WHITTLE, James Murray; WILLARS, Frederick Leslie; WILLIAMS, Herbert John (*Part 1 only*); WILLIAMS, Thomas Denby; WILLS, Gerald (*Part 1 only*); WISEMAN, Reginald Hadley (*Part 1 only*); WOOD, Leslie Charles (*Distinction in Thesis*); WOOD, Reginald George; YARROW, Alfred Richard.

The Special Final Examination

The Special Final Examination was held in London and Edinburgh from 5 July to 11 July 1939.

Of the 68 candidates examined, 35 passed (7 of whom sat for and passed in Part 1 only) and 33 were relegated.

The successful candidates are as follows:—

BARNES, Victor Charles; BLOORE, Harold George; BRAMLEY, Ambrose Roy; BURTON, John Walcot; CANNON, John Cowburn; CHAMBERLAINE, Donald (*Part 1 only*); COLGRAVE, Arnold Edward (*Part 1 only*); DEUCHARS, James; EVE, Albert Stanley; FISHER, Arthur; GELSON, George William; GILLETT, Herbert Gornall; HAMILTON, Hector Oliver; HAMILTON, Kenneth William; HEATHCOTE, John Stanley; HEDLEY, Fred; JACOBS, Herbert Geoffrey;

LAWTON, John ; MACFARLANE, Robert Alexander (*Part 1 only*) ; MCGUIRE, Robert ; MCISAAC, Malcolm Livingston ; MACKENZIE, Alan ; MCMASTER, Hugh (*Part 1 only*) ; MAGGS, Kenneth Leonard ; MARSTON, James Clifford ; MOCHRIE, Harry Anderson (*Part 1 only*) ; MORRIS, Cyril Laurence ; PERRY, Charles Alexander ; RIDLEY, Arthur James ; SARGENT, Edward Tom ; SHEPPARD, Herbert Henry Berkley ; THOMAS, William Wilberforce ; THORNLEY, Harry (*Part 1 only*) ; WEST, John Charles Percy (*Part 1 only*) ; WOODHEAD, Alan John.

The Examination in Professional Practice for Students of Schools of Architecture recognised for exemption from the R.I.B.A. Final Examination.

The Examination was held in London and Edinburgh on 11 and 13 July 1939. Of the 7 candidates examined, 6 passed and 1 was relegated.

The successful candidates are as follows :—

BLACKMORE, Stanley William ; BROUN, Gilbert Smith ; DUNBAR, Francis Benson ; FORSYTH, Robert John ; GILFILLAN (Miss) Janet Craig Stewart ; ROSS, Hugh.

Allied Societies' Activities

THE SUFFOLK ASSOCIATION OF ARCHITECTS

REPORT FOR THE SESSION ENDING JUNE 1939

The annual report of the Suffolk Association records the principal meetings and visits held during the successful year's work. Among other items of interest are the following :—

ADVISORY PANEL

The Panel has continued to meet fortnightly. Recently the usefulness of the work has been increased by the submission of layout plans for new building estates in East Suffolk and in Felixstowe. Some amendments have been secured and others are still under discussion. Thanks are due to members of the Panel for their patient perseverance in a rather tedious task.

NATIONAL EMERGENCY

In response to a request from the R.I.B.A., a small Emergency Committee has been formed, to co-operate with the central committee. Those nominated are Mr. Leslie Barefoot, Mr. Martin Slater and Mr. E. J. Symcox.

LIBRARY

The American *Architectural Record* has been subscribed to for one year, and can be seen at the Ipswich Central Library. Here also are the *Architectural Review* and the *Architect and Building News*, and several technical journals.

The Library also has a large number of architectural books, many of which were presented by the Association. A list of these books was kindly supplied by the Librarian, and has been sent to every member of the Association.

THE SOUTH WALES INSTITUTE OF ARCHITECTS :

CENTRAL (CARDIFF) BRANCH AND

THE WELSH SCHOOL OF ARCHITECTURE,

THE TECHNICAL COLLEGE, CARDIFF

An exhibition of students' work in architectural design, measured drawings, working drawings, etc., arranged by the Central Branch of the South Wales Institute of Architects in conjunction with the Welsh School of Architecture, Cardiff Technical College, was held in the Assembly Hall of the Technical College, Cardiff, on the afternoon of Wednesday, 5 July.

This exhibition was of a somewhat unusual character, as it did not consist of selected portions of the work done by various students, but of the whole of the work done by one student (Miss Joan Burford Treatt) throughout the five years' course leading to exemption from the Final Examination for Associateship of the Royal Institute of British Architects and qualifying for registration under the Architects Registration Act.

Miss Treatt was this year's winner of the prize for colour decoration awarded by Messrs. The Walpamur Company, Ltd., and was also awarded a prize for working drawings. As this was the first occasion on which the work of a woman student had been selected for the purpose, the exhibition proved to be particularly interesting to the large number who attended.

School Notes

DEGREE OF BACHELOR IN ARCHITECTURE (WALES)

The full approval of the Privy Council has now been received for the scheme for a course leading to the Degree of Bachelor in Architecture which has been arranged jointly by the University of Wales and the Welsh School of Architecture, Cardiff Technical College.

This course is open to matriculated students only. It is of six years' duration, the first year being spent in one of the colleges of the University of Wales, during which period courses of intermediate or higher grade are to be completed in not fewer than three approved subjects. The remaining five years of the course are to be spent in the Welsh School of Architecture, the courses during this period being similar to the Certificate and Diploma courses which have been provided in the Welsh School of Architecture for nearly twenty years.

The establishment of courses leading to the Degree of Bachelor in Architecture, Pass or Honours, means that in future students of architecture living in Wales need not leave the Principality if they wish to work for a degree. It also means that Welsh State scholars may study architecture without leaving Wales, and that students of architecture in Wales will be eligible for such important awards as the Commonwealth Fellowship.

The Welsh School of Architecture was granted the Intermediate recognition of the Royal Institute of British Architects in 1920, and in 1928 it was given the fullest possible recognition of that body, the examinations of the School being accepted in lieu of the examinations leading to the Associateship, a qualification which has already been granted to 76 students of the School.

The Welsh School of Architecture is one of the schools recognised under the Architects (Registration) Act of 1931, the School's examinations being accepted as a complete qualification for registration.

Not only have the above-mentioned degree courses been arranged, but a Faculty of Architecture, possibly the first in Great Britain, has been established, partly in order that the courses of study would not have to be fitted in to regulations governing courses already provided for other professions, but so that new regulations could be drafted to suit the special requirements of professional education for architects.

It is a matter of some considerable importance, and not only to professional students of architecture, that one of the visual arts has now been given the fullest possible recognition by the University of Wales.

The Walpamur Prize for Colour Decoration offered annually to the Welsh School of Architecture, Cardiff Technical College, has just been awarded for the current session to Miss Joan Burford Treatt.

The prize is to the value of £15, and in addition the winning student is given an opportunity of visiting the main factory of the Walpamur Company at Darwen, Lancashire, expenses incurred by the visit being paid by the company.

Notices

R.I.B.A. WORK: THE PRESENT POSITION

Owing to the outbreak of war it has been necessary to suspend for the time being all R.I.B.A. normal activities.

Work in connection with the National Service Register will continue to be carried on from 66 Portland Place, London, W.1.

The Loan and Reference libraries will be closed until further notice, but arrangements have been made whereby members can consult current periodicals, literature on A.R.P. and information useful to members engaged on war work.

Arrangements for conducting the Intermediate, Final and Special Final Examinations and the Statutory Examinations and the annual competitions for prizes and studentships have been postponed until further notice.

Testimonies of Study for the Intermediate and Final Examinations should not be submitted until further notice and members are requested to acquaint their pupils and assistants of this decision.

CESSATION OF MEMBERSHIP

Under the terms of Byelaw 21 the following has ceased to be a member of the Royal Institute :—

As Associate :

William Haigh Harral.

Competitions

The Council and Competitions Committee wish to remind members and members of Allied Societies that it is their duty to refuse to take part in competitions unless the conditions are in conformity with the R.I.B.A. Regulations for the Conduct of Architectural Competitions and have been approved by the Institute.

While, in the case of small limited private competitions, modifications of the R.I.B.A. Regulations may be approved, it is the duty of members who are asked to take part in a limited competition to notify the Secretary of the R.I.B.A. immediately, submitting particulars of the competition. This requirement now forms part of the Code of Professional Practice in which it is ruled that a formal invitation to two or more architects to prepare designs in competition for the same project is deemed a limited competition.

AUCKLAND, NEW ZEALAND: NEW CATHEDRAL

The General Trust Board of the Diocese of Auckland invite members of the New Zealand Institute of Architects resident in New Zealand or overseas to submit in competition designs for a new Cathedral.

Assessor : Sir Giles Gilbert Scott, R.A. [*F.*].
Premiums : £1,000, £400, £200 and £100.
Last day for submitting designs : 15 November 1939.
Last day for questions : 31 May 1939.

Conditions of the competition may be obtained on application to (*a*) The General Trust Board, P.O. Box 652, Auckland, New Zealand, or (*b*) The Secretary R.I.B.A., 66 Portland Place, London, W.1. Deposit £1 1s.

GOSPORT: NEW SENIOR BOYS' SCHOOL

The Gosport Education Committee invite architects of British nationality to submit in competition designs for a new Senior School for 480 boys at Elson, Gosport.

Assessor : Mr. Julian Leathart [*F.*].
Premiums : £100, £50 and £25.
Last day for submitting designs : 11 November 1939.
Last day for questions : 19 August 1939.

Conditions of the competition may be obtained on application to Mr. Geo. R. Walker, Secretary to the Education Committee, Education Offices, Stoke Road, Gosport, Hants. Deposit £1 1s.

OLDHAM: NEW ELECTRICITY OFFICES

The Corporation of the County Borough of Oldham invite registered architects to submit in competition designs for new Offices and Departmental Buildings for the Electricity Department to be erected on a site in Union Street.

Assessor : Professor R. A. Cordingley [*F.*].
Premiums : £400, £250 and £100.
Last day for submitting designs : 4 October 1939.
Last day for questions : 5 June 1939.

Conditions of the competition may be obtained on application to Mr. F. L. Ogden, Borough Electrical Engineer, Greenhill Offices, Oldham. Deposit £2 2s.

MEMBERS' COLUMN

Owing to limitation of space, notices in this column are restricted to changes of address, partnerships vacant or wanted, practices for sale or wanted, office accommodation, and appointments vacant. Members are reminded that a column in the Advertisement Section of the Journal is reserved for the advertisements of members seeking appointments in architects' offices. No charge is made for such insertions and the privilege is confined to members who are definitely unemployed.

A list of members seeking positions with prospects of partnership is kept at the office of the R.I.B.A. and members who are desirous of having their names placed on this list are requested to send particulars of their qualifications, age, etc., to the Secretary R.I.B.A.

CLOSING OF OFFICE

THE OFFICE of Messrs. W. Henry White & Sons (W. Henry White [*F.*], T. Hansford White [*F.*] and Roy H. White F.S.I.), has been closed. Communications for Mr. W. H. White or Mr. T. Hansford White should be addressed to Elmhurst, Bourne End, Bucks.

OFFICE ACCOMMODATION TO LET

THREE large light rooms, third floor, overlooking Hanover Square.—Apply Box 3539, c/o Secretary R.I.B.A.

THREE light airy rooms in architect's suite, Victoria Street. Rent, including electricity, £125 per annum.—Box 2839, c/o Secretary R.I.B.A.

CHANGES OF ADDRESS

MR. A. E. JONES [*A.*] has moved to 2 Hyde Valley Road, Welwyn Garden City, Herts.

DURING the war the work of the firm Scott, Shepherd and Breakwell [A./F./A.] will be carried on at the Pond House, Stoke Row, nr. Henley-on-Thames, Oxford. Tel. Checkendon 105.

Architects' and Surveyors' Approved Society

ARCHITECTS' ASSISTANTS' INSURANCE FOR THE NATIONAL HEALTH AND PENSIONS ACTS

Architects' Assistants are advised to apply for the prospectus of the Architects' and Surveyors' Approved Society, which may be obtained from the Secretary of the Society, 113 High Holborn, London, W.C.1.

The Society deals with questions of insurability or the National Health and Pensions Acts (for England) under which, in general, those employed at remuneration not exceeding £250 per annum are compulsorily insurable.

In addition to the usual sickness, disablement and maternity benefits, the Society makes grants towards the cost of dental or optical treatment (including provision of spectacles).

No membership fee is payable beyond the normal Health and Pensions Insurance contribution.

The R.I.B.A. has representatives on the Committee of Management, and insured Assistants joining the Society can rely on prompt and sympathetic settlement of claims.

Architects' Benevolent Society

66 PORTLAND PLACE, W.1

FOUNDED 1850

The object of the Society is to afford assistance to architects, architects' assistants, and their widows and children by means of grants and pensions.

Subscriptions and donations of any amount are urgently needed. An annual subscriber of £1 1s. is entitled to recommend annually two applicants for relief.

PENSION AND FAMILY PROVISION SCHEME FOR ARCHITECTS

This scheme has been specially designed by the A.B.S. Insurance Committee for members of the R.I.B.A. and its Allied and Associated Societies. It provides :

1. A pension for members on retirement at age 65.
2. Widow's pension—payable to the widow from the time when, if the member had lived, he would have attained age 65.
3. Family protection : if the member dies before age 65 a yearly payment is made to his dependants from the date of his death till Benefit No. 2 becomes available.

The benefits are purchased in units of £50 per annum up to a maximum of £500 per annum.

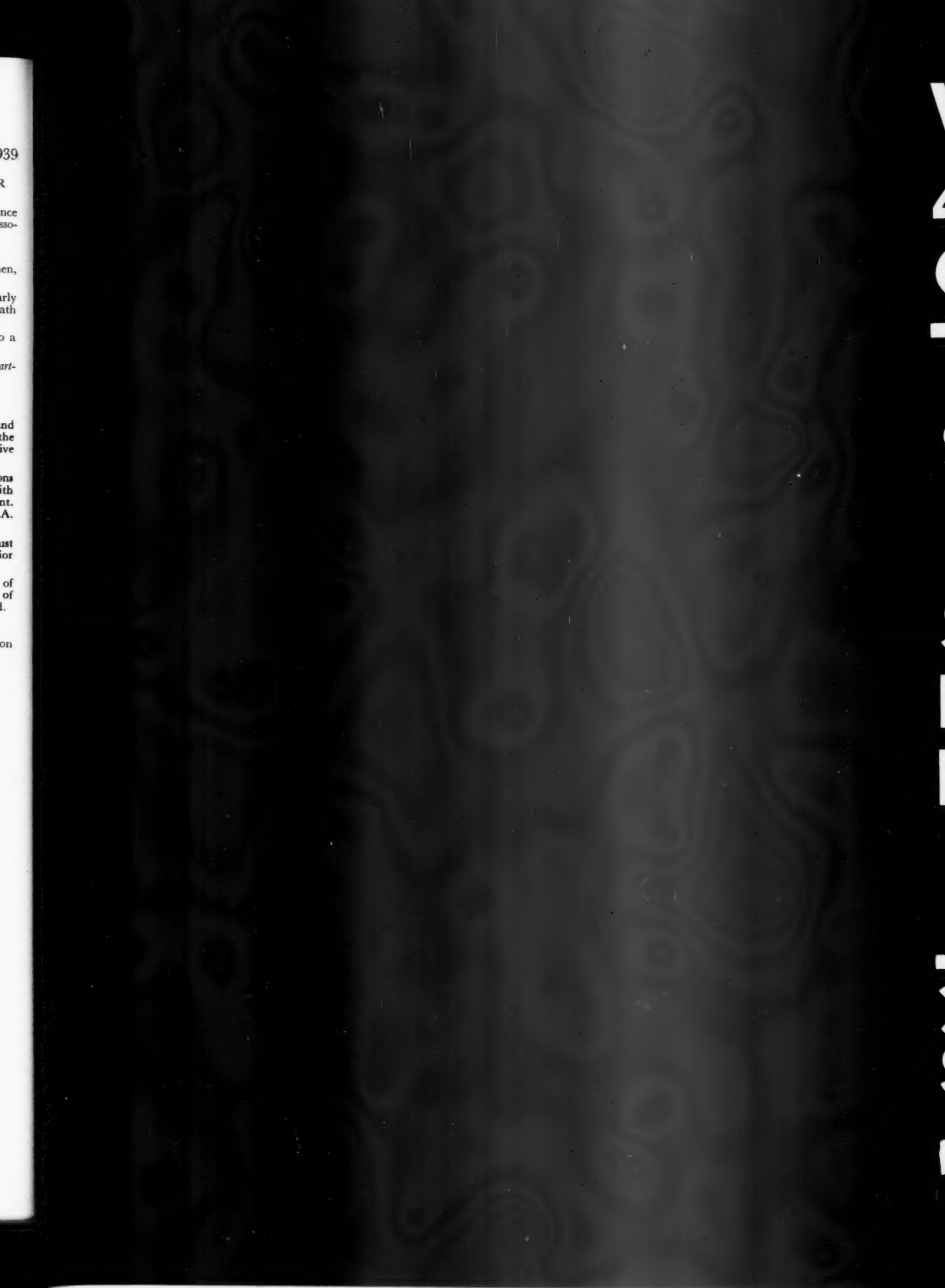
Please write for full particulars to the Secretary, A.B.S. Insurance Department, 66 Portland Place, London, W.1. Telephone : Welbeck 5721.

It is desired to point out that the opinions of writers of articles and letters which appear in the R.I.B.A. JOURNAL must be taken as the individual opinions of their authors and not as representative expressions of the Institute.

Members sending remittances by postal order for subscriptions of Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A. and crossed.

Members wishing to contribute notices or correspondence must send them addressed to the Editor not later than the Tuesday prior to the date of publication.

Back numbers of the JOURNAL can be obtained at the price of 1s. 9d., including postage throughout the world. For orders of more than six copies discounts are given. Orders must be prepaid.

R.I.B.A. JOURNAL

DATES OF PUBLICATION.—1939.—No future dates of publication are fixed at present.